

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:53:36 ON 15 JAN 2008  
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STRUCTURE FILE UPDATES: 14 JAN 2008 HIGHEST RN 960583-85-1  
 DICTIONARY FILE UPDATES: 14 JAN 2008 HIGHEST RN 960583-85-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

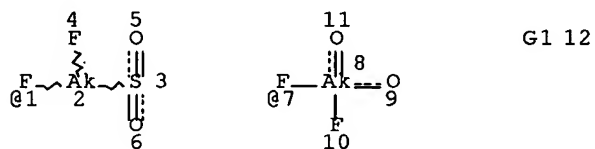
Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
 predicted properties as well as tags indicating availability of  
 experimental property data in the original document. For information  
 on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d que stat l7

L4 SCR 2043  
 L5 STR



VAR G1=1/7

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L7 9930 SEA FILE=REGISTRY SSS FUL L5 AND L4

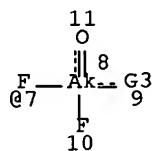
100.0% PROCESSED 69805 ITERATIONS

9930 ANSWERS

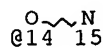
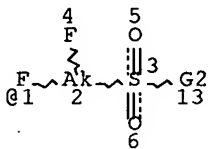
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=> d que stat l11

L11 STR



G1 12



OH @16

VAR G1=1/7

VAR G2=N/14/16

VAR G3=16/14

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STEREO ATTRIBUTES: NONE

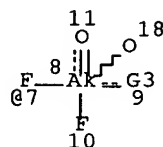
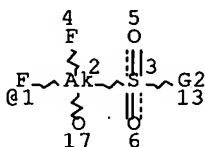
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L14 STR

G1 12



OH @16



VAR G1=1/7

VAR G2=N/14/16

VAR G3=16/14

NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

=&gt; d his nofile

(FILE 'HOME' ENTERED AT 13:55:56 ON 15 JAN 2008)

FILE 'HCAPLUS' ENTERED AT 13:56:19 ON 15 JAN 2008

L1 1 SEA ABB=ON PLU=ON US2005228127/PN  
SEL RN

FILE 'REGISTRY' ENTERED AT 13:56:45 ON 15 JAN 2008

L2 3 SEA ABB=ON PLU=ON (666238-23-9/BI OR 666238-30-8/BI OR  
69462-70-0/BI)  
D SCA

L3 FILE 'LREGISTRY' ENTERED AT 14:17:37 ON 15 JAN 2008  
STR

L4 FILE 'REGISTRY' ENTERED AT 14:19:54 ON 15 JAN 2008  
L5 SCR 2043  
L6 STR L3  
L7 50 SEA SSS SAM L5 AND L4  
L8 9930 SEA SSS FUL L5 AND L4  
3 SEA ABB=ON PLU=ON L2 AND L7  
SAV L7 KOL052/A

L9 FILE 'LREGISTRY' ENTERED AT 14:26:35 ON 15 JAN 2008  
STR L5

L10 FILE 'REGISTRY' ENTERED AT 14:30:35 ON 15 JAN 2008  
50 SEA SUB=L7 SSS SAM L9

L11 FILE 'LREGISTRY' ENTERED AT 14:33:01 ON 15 JAN 2008  
STR L9

L12 FILE 'REGISTRY' ENTERED AT 14:35:05 ON 15 JAN 2008  
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L13 5270 SEA SUB=L7 SSS FUL L11  
SAV L13 KOL052S1/A

L14 FILE 'LREGISTRY' ENTERED AT 14:36:29 ON 15 JAN 2008  
STR L11

L15 FILE 'REGISTRY' ENTERED AT 14:40:05 ON 15 JAN 2008  
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L16 953 SEA SUB=L7 SSS FUL L14  
SAV L15 KOL052S2/A

L17 FILE 'HCAPLUS' ENTERED AT 14:43:25 ON 15 JAN 2008  
L18 QUE ABB=ON PLU=ON PARTICLE  
L19 QUE ABB=ON PLU=ON FINE(2A) PARTICLE  
L20 1499 SEA ABB=ON PLU=ON L16  
L21 9 SEA ABB=ON PLU=ON L18 AND L19  
L22 4366 SEA ABB=ON PLU=ON L13  
L23 32 SEA ABB=ON PLU=ON L21 AND L18  
L24 9 SEA ABB=ON PLU=ON L20 AND L22  
L25 23 SEA ABB=ON PLU=ON L22 NOT L23  
L26 84 SEA ABB=ON PLU=ON L8  
L27 8 SEA ABB=ON PLU=ON L25 AND L17  
L28 2 SEA ABB=ON PLU=ON L26 AND L18  
L29 6 SEA ABB=ON PLU=ON L26 NOT L27  
L30 8 SEA ABB=ON PLU=ON L23 NOT (L27 OR L28)  
23 SEA ABB=ON PLU=ON L24 NOT (L27 OR L28 OR L29)

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 14:54:05 ON 15 JAN 2008  
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FILE COVERS 1907 - 15 Jan 2008 VOL 148 ISS 3  
FILE LAST UPDATED: 14 Jan 2008 (20080114/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 127 ibib abs hitstr hitind 1-2

L27 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:756777 HCAPLUS Full-text

DOCUMENT NUMBER: 141:261501

TITLE: Liquid fluoropolymer composition, process for producing organosol, film, and fuel cell

INVENTOR(S): Tatemoto, Masayoshi; Ino, Tadashi; Arase, Takuya; Sakakura, Atsushi

PATENT ASSIGNEE(S): Daikin Industries Ltd., Japan

SOURCE: PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004078842	A1	20040916	WO 2004-JP2609	20040303
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1602687	A1	20051207	EP 2004-716771	20040303
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
CN 1756800	A	20060405	CN 2004-80005783	20040303
US 2006194703	A1	20060831	US 2005-547770	20050902

PRIORITY APPLN. INFO.:

JP 2003-56184

A

200303

03

WO 2004-JP2609

W

200403

03

AB The present invention relates to a liquid fluoropolymer composition comprising a fluoropolymer and a film-forming aid, wherein the fluoropolymer comprises acid/acid salt type fluorovinyl ether units  $[\text{CF}_2\text{C}(\text{F})\text{O}(\text{CF}_2\text{CFY}_1\text{O})_n(\text{CFY}_2)_m\text{Al}]$  and the film-forming aid is an organic liquid with b.p. 100-300° having compatibility with water, Y1 = halogen atom or perfluoroalkyl group; Y2 = halogen atom; Al =  $\text{SO}_2\text{X}_1$  or  $\text{COOZ}_1$ ; X1 = OH, ONR1R2R3R4, NR5R6, or OM11/L; R1, R2, R3, R4 = H or Cl-4 alkyl; R5, R6 = H, alkali metal, alkyl, or sulfonyl-containing group; Z1 = H, NR7R8R9R10, or M21/L; R7, R8, R9, R10 = H or Cl-4 alkyl; M1, M2 = L-valent metal selected from Group Ia, Group IIa, Group IVb, group Ib, Group IIb, or group IIIa; m = 1-5 integer; and n = 0-3 integer. The liquid fluoropolymer composition is a fluoropolymer dispersion composition comprising **fine particles** of the fluoropolymer and the film-forming aid and is characterized in that  $\geq 25\%$  of the **fine fluoropolymer particles** are accounted for by **fine fluoropolymer particles** which are substantially spherical. Thus, tetrafluoroethylene-perfluoro(3-oxa-4-pentenesulfonyl fluoride) copolymer emulsion was hydrolyzed using 10% sodium hydroxide solution and neutralized with hydrochloric acid to give a 26%-solids fluoropolymer **particle** dispersion with good stability, which was mixed with tri-Et phosphate, applied on a glass plate, dried at 80° for 30 min to give a 10-  $\mu\text{m}$ -thick film.

IT 69462-70-ODP, Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(trifluoroethenyl)oxy]-, polymer with tetrafluoroethene, hydrolyzed  
 RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(liquid fluoropolymer compns. for films and fuel cells)

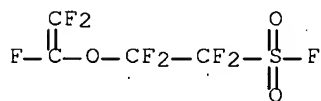
RN 69462-70-0 HCAPLUS

CN Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene (CA INDEX NAME)

CM 1

CRN 29514-94-1

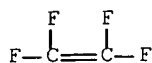
CMF C4 F8 O3 S



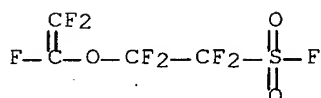
CM 2

CRN 116-14-3

CMF C2 F4



IT **69462-70-0**, Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-  
 [(trifluoroethenyl)oxy]-, polymer with tetrafluoroethene  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
 process); PROC (Process)  
 (liquid fluoropolymer compns. for films and fuel cells)  
 RN 69462-70-0 HCAPLUS  
 CN Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(1,2,2-  
 trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene (CA  
 INDEX NAME)  
 CM 1  
 CRN 29514-94-1  
 CMF C4 F8 O3 S



CM 2  
 CRN 116-14-3  
 CMF C2 F4



IC ICM C08L029-10  
 ICS C08K005-00; C08F008-12; C08J005-22; H01M008-02; H01M008-10  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38, 52  
 IT **69462-70-0DP**, Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-  
 [(trifluoroethenyl)oxy]-, polymer with tetrafluoroethene, hydrolyzed  
 RL: CPS (Chemical process); IMF (Industrial manufacture); PEP  
 (Physical, engineering or chemical process); TEM (Technical or  
 engineered material use); PREP (Preparation); PROC (Process); USES  
 (Uses)  
 (liquid fluoropolymer compns. for films and fuel cells)  
 IT **69462-70-0**, Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-  
 [(trifluoroethenyl)oxy]-, polymer with tetrafluoroethene  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
 process); PROC (Process)  
 (liquid fluoropolymer compns. for films and fuel cells)  
 REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L27 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:182926 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140:219004  
 TITLE: Fluoropolymer dispersion and process for  
 producing fluoropolymer dispersion  
 INVENTOR(S): Tatemoto, Masayoshi; Arase, Takuya; Ino, Tadashi  
 PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan  
 SOURCE: PCT Int. Appl., 60 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004018527	A1	20040304	WO 2003-JP7591	20030616
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2490136	A1	20040304	CA 2003-2490136	20030616
AU 2003244123	A1	20040311	AU 2003-244123	20030616
EP 1535935	A1	20050601	EP 2003-792618	20030616
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1662563	A	20050831	CN 2003-814253	20030616
US 2005228127	A1	20051013	US 2004-518052	20041216
PRIORITY APPLN. INFO.:			JP 2002-175445	A 20020617
			JP 2003-56185	A 20030303
			WO 2003-JP7591	W

200306

16

AB The present invention relates to a solid fluoropolymer composition containing **fine particles** of a fluoropolymer having acid or acid-base groups, where the acid or acid-base groups are sulfo, SO<sub>2</sub>NR<sub>1</sub>R<sub>7</sub>R<sub>18</sub>, carboxy, SO<sub>3</sub>NR<sub>1</sub>R<sub>2</sub>R<sub>3</sub>R<sub>4</sub>, SO<sub>3</sub>M<sub>1</sub>/L, COONR<sub>5</sub>R<sub>6</sub>R<sub>7</sub>R<sub>8</sub>, or COOM<sub>2</sub>/L, and the **fine fluoropolymer particles** comprise ≥25% substantially spherical **fine fluoropolymer particles**, wherein R<sub>17</sub>, R<sub>18</sub> = H, alkali metal, alkyl, or sulfonyl-containing group; R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub> = H or C<sub>1</sub>-4 alkyl; and M<sub>1</sub>, M<sub>2</sub> = L valent metal selected from Group 1, 2, 4, 8, 11, 12, and 13. Thus, 2.4 g sodium 1,1,2,2-tetrafluoro-2-[(trifluoroethenyl)oxy]ethanesulfonate, 20 g perfluoro-3-oxa-4-pentenesulfonyl fluoride, tetrafluoroethylene, and hexafluoropropylene were polymerized to give 16%-solids copolymer precursor dispersion with sulfonyl fluoride unit content 16 mol%, 50 mL of which was hydrolyzed with 10% potassium hydroxide solution, and hydrolyzed with 1 N hydrochloric acid to give 32%-solids copolymer dispersion, ethanol and isopropanol were added therein, and applied on a glass plate, dried, and treated at 300° for 10 min to give a film with thickness 5-10 μm.

IT **69462-70-ODP**, Perfluoro-3-oxa-4-pentenesulfonyl fluoride-tetrafluoroethylene copolymer, hydrolyzed **666238-23-9DP**, hydrolyzed **666238-30-8DP**, hydrolyzed

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation of fluoropolymer dispersions)

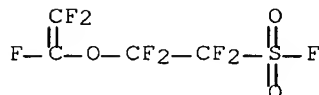
RN 69462-70-0 HCAPLUS

CN Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene (CA INDEX NAME)

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CRN 29514-94-1

CMF C4 F8 O3 S



CM 2

CRN 116-14-3

CMF C2 F4



RN 666238-23-9 HCAPLUS

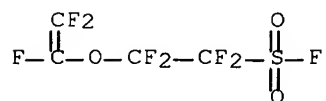
CN Ethanesulfonic acid, 1,1,2,2-tetrafluoro-2-[(trifluoroethenyl)oxy]-, sodium salt, polymer with 1,1,2,3,3,3-hexafluoro-1-propene,

tetrafluoroethene and 1,1,2,2-tetrafluoro-2-  
 [(trifluoroethenyl)oxy]ethanesulfonyl fluoride (9CI) (CA INDEX  
 NAME)

CM 1

CRN 29514-94-1

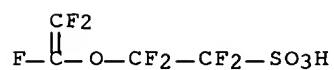
CMF C4 F8 O3 S



CM 2

CRN 26953-98-0

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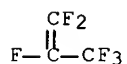


● Na

CM 3

CRN 116-15-4

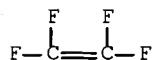
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CM 4

CRN 116-14-3

CMF C2 F4



RN 666238-30-8 HCAPLUS

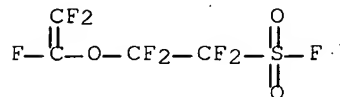
CN Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-  
 [(trifluoroethenyl)oxy]-, polymer with 1,1,2,3,3,3-hexafluoro-1-

propene and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 29514-94-1

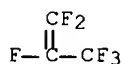
CMF C4 F8 O3 S



CM 2

CRN 116-15-4

CMF C3 F6



CM 3

CRN 116-14-3

CMF C2 F4



IC ICM C08F008-12

ICS C08F006-16; C08L027-12; B01D071-32; B01J047-12; H01M008-02;  
H01M004-86

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 52, 67

IT **69462-70-ODP**, Perfluoro-3-oxa-4-pentenesulfonyl  
fluoride-tetrafluoroethylene copolymer, hydrolyzed  
**666238-23-9DP**, hydrolyzed **666238-30-8DP**,  
hydrolyzedRL: IMF (Industrial manufacture); TEM (Technical or engineered  
material use); PREP (Preparation); USES (Uses)  
(preparation of fluoropolymer dispersions)REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN  
THE RE FORMAT

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L28 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:523549 HCAPLUS Full-text  
 DOCUMENT NUMBER: 143:61008  
 TITLE: Fluoropolymer dispersion and process for  
 producing fluoropolymer dispersion  
 INVENTOR(S): Arase, Takuya; Tatemoto, Masayoshi  
 PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan  
 SOURCE: PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005054363	A1	20050616	WO 2004-JP17889	20041201
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				
US 2007141425	A1	20070621	US 2006-580964	20060531
PRIORITY APPLN. INFO.:				JP 2003-402328 A
				20031201
				WO 2004-JP17889 W
				20041201

AB A liquid fluoropolymer composition which comprises a fluoropolymer fluid comprising a liquid medium and a crosslinkable fluoropolymer, characterized in that the fluoropolymer fluid is a liquid fluoropolymer dispersion comprising a liquid dispersion medium and, dispersed therein, **particles** of a crosslinkable fluoropolymer having an acid/acid salt group or an organic group which, upon hydrolysis, is converted to carboxy or the fluoropolymer fluid is a fluoropolymer solution comprising a fluorochem. solvent or alc./water mixed solvent and, dissolved therein, a crosslinkable fluoropolymer having an acid/acid salt group or a precursor for the group, and that the acid/acid salt group is sulfo, carboxy, -SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>, -SO<sub>3</sub>NR<sub>4</sub>R<sub>5</sub>R<sub>6</sub>R<sub>7</sub>, -SO<sub>3</sub>Me/L, -COONR<sub>8</sub>R<sub>9</sub>R<sub>10</sub>R<sub>11</sub>, or -COOMe/L and the precursor is -SO<sub>2</sub>F, -SO<sub>2</sub>NR<sub>2</sub>R<sub>2</sub>R<sub>3</sub>, or an organic group which, upon hydrolysis, is converted to carboxy.

IT 69462-70-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (fluoropolymer dispersion and process for producing fluoropolymer dispersion)

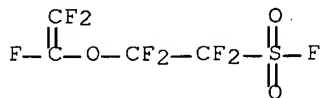
RN 69462-70-0 HCAPLUS

CN Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene (CA INDEX NAME)

CM 1

CRN 29514-94-1

CMF C4 F8 O3 S



CM 2

CRN 116-14-3

CMF C2 F4



IC ICM C08L027-12

ICS C08J003-24; H01M008-02; H01M008-10

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 52, 67

IT **69462-70-0P** 853926-95-1P 853926-97-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(fluoropolymer dispersion and process for producing fluoropolymer dispersion)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:865383 HCAPLUS Full-text

DOCUMENT NUMBER: 134:42878

TITLE: Manufacture of fluorocarbon polymer uniform **particles**

INVENTOR(S): Saito, Mitsugu; Saegi, Takashi; Shimohira, Satoshi

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

JP 2000344825

A

20001212

JP 1999-157768

199906

04

PRIORITY APPLN. INFO.:

JP 1999-157768

199906

04

AB Fluorocarbon polymer latexes prepared by emulsion polymerization of fluorocarbons are contacted to fluoro solvents having b.p. 10-250° so as to extract and sep. free monomers, freed of the extraction solvents to their content ≤10%, and then the fluoropolymer **particles** in the latexes are aggregated. The **particles** have excellent moldability and are useful for ion exchange membranes. Thus, 100 g CF<sub>2</sub>:CFO(CF<sub>2</sub>)<sub>3</sub>CO<sub>2</sub>Me- tetrafluoroethylene copolymer latex was stirred with 30 g C<sub>6</sub>F<sub>17</sub>H (sic; b.p. 72°), allowed to stand for 30 min, separated from the C<sub>6</sub>F<sub>17</sub>H phase, and the extraction process was repeated 6 times. Then the latex was heated to 70° for 7 h to reduce C<sub>6</sub>F<sub>17</sub>H content from 15 to 2%, aggregated in aqueous H<sub>2</sub>SO<sub>4</sub> in presence of MeCCl<sub>2</sub>F, treated with MeOH, washed, and dried to give polymer **particles**.

IT 69462-70-0P

RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(manufacture of fluorocarbon polymer uniform **particles** from latexes)

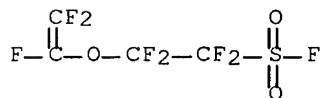
RN 69462-70-0 HCAPLUS

CN Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene (CA INDEX NAME)

CM 1

CRN 29514-94-1

CMF C4 F8 O3 S



CM 2

CRN 116-14-3

CMF C2 F4



IC ICM C08F006-10

ICS C08F014-18

CC 37-3 (Plastics Manufacture and Processing)

ST perfluorovinyloxybutyrate polymer latex purifn hydrofluorocarbon solvent; fluorocarbon polymer **particle** prepn

IT Hydrocarbons, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(chlorofluorocarbons, monomer extraction solvents; manufacture of fluorocarbon polymer uniform **particles** from latexes)

IT Hydrocarbons, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(fluoro, monomer extraction solvents; manufacture of fluorocarbon polymer uniform **particles** from latexes)

IT Fluoropolymers, preparation  
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)  
(manufacture of fluorocarbon polymer uniform **particles** from latexes)

IT 61757-36-6P 62695-27-6P **69462-70-0P**  
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)  
(manufacture of fluorocarbon polymer uniform **particles** from latexes)

IT 507-55-1, 1,3-Dichloro-1,1,2,2,3-pentafluoropropane  
RL: NUU (Other use, unclassified); USES (Uses)  
(monomer extraction solvent; manufacture of fluorocarbon polymer uniform **particles** from latexes).

L28 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:367062 HCAPLUS Full-text

DOCUMENT NUMBER: 133:5426

TITLE: Preparation of sulphonic fluorinated ionomer solutions at low temperature in a ternary mixture

INVENTOR(S): Maccone, Patrizia; Zompatori, Alberto

PATENT ASSIGNEE(S): Ausimont S.p.A., Italy; Solvay Solexis S.p.A.

SOURCE: Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
EP 1004615	A2	20000531	EP 1999-105912	199903 24
EP 1004615	A3	20000913		
EP 1004615	B1	20051214		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
IT 1303779	B1	20010223	IT 1998-MI2523	199811 23
CA 2267058	A1	20000523	CA 1999-2267058	199903 29

JP 2000159965	A	20000613	JP 1999-89898	199903 30
CN 1254727	A	20000531	CN 1999-105928	199903 31
KR 2000034833	A	20000626	KR 1999-11357	199903 31
US 6197903	B1	20010306	US 1999-281913	199903 31
PRIORITY APPLN. INFO.:				199811 23
			IT 1998-MI2523	A

AB Sulfonic (per)fluorinated ionomers having SO<sub>3</sub>M functional groups, where M = H, Li, Na, K, NR<sub>4</sub> (R = H, Me, C<sub>2</sub>H<sub>5</sub>), dissolve at 25-150°, in a monophasic ternary mixture essentially constituted by H<sub>2</sub>O, by a Cl-4 alc. and by a fluoro(poly)oxyalkylene having 1 H atom in at least a fluorinated end group; to give a solution and/or dispersion of polymer **particle** sizes 30-100 nm. Tetrafluoroethylene polymer with CF<sub>2</sub>:CFOCF<sub>2</sub>CF<sub>2</sub>SO<sub>2</sub>F (hydrolyzed) was dissolved (1%) in a mixture (7.3:71:21.7) of water, MeOH, and fluoropolyoxyalkylene at 70°.

IT 69462-70-0D, hydrolyzed

RL: POF (Polymer in formulation); USES (Uses)

(preparation of sulfonic fluorinated ionomer solns. at low temperature in a ternary mixture of alc., water, and fluoropolyoxyalkylene)

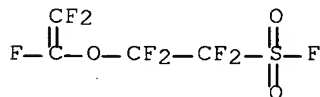
RN 69462-70-0 HCAPLUS

CN Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene (CA INDEX NAME)

CM 1

CRN 29514-94-1

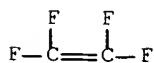
CMF C4 F8 O3 S



CM 2

CRN 116-14-3

CMF C2 F4



IC ICM C08J003-09

ICI C08L027-12  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST fluorinated ionomer sulfonated dispersion; alc water  
 fluoropolyoxyalkylene solvent ionomer; monomodal **particle**  
 ionomer dispersion  
 IT **69462-70-0D**, hydrolyzed  
 RL: POF (Polymer in formulation); USES (Uses).  
 (preparation of sulfonic fluorinated ionomer solns. at low temperature in a  
 ternary mixture of alc., water, and fluoropolyoxyalkylene)

L28 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1998:251219 HCAPLUS Full-text  
 DOCUMENT NUMBER: 128:295444  
 TITLE: Compositions containing **particles** of  
 highly fluorinated ion exchange polymer  
 INVENTOR(S): Curtin, Dennis Edward; Howard, Edward George,  
 Jr.  
 PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA  
 SOURCE: PCT Int. Appl., 48 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
WO 9816581	A1	19980423	WO 1997-US18423	199710 15
W: AU, BR, CA, CN, JP RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2268629	A1	19980423	CA 1997-2268629	199710 15
AU 9747541	A	19980511	AU 1997-47541	199710 15
AU 745585	B2	20020321		
EP 932646	A1	19990804	EP 1997-910078	199710 15
EP 932646	B1	20010725		
R: DE, FR, GB, IT				
BR 9712231	A	19990831	BR 1997-12231	199710 15
CN 1233267	A	19991027	CN 1997-198813	199710 15
US 6150426	A	20001121	US 1997-950457	199710 15
JP 2001504872	T	20010410	JP 1998-518491	199710 15
JP 3936402	B2	20070627		
US 6552093	B1	20030422	US 2000-630826	

US 2003176515	A1	20030918	US 2002-325283	200008 02
US 6916853	B2	20050712		200212 20
US 2005119357	A1	20050602	US 2005-32779	200501 11
US 7166685	B2	20070123		200501 11
US 2005171220	A1	20050804	US 2005-33407	200501 11
PRIORITY APPLN. INFO.:			US 1996-28501P	P 199610 15
			US 1997-950457	A3 199710 15
			WO 1997-US18423	W 199710 15
			US 2000-630826	A3 200008 02
			US 2002-325283	A3 200212 20

AB Solid and liquid compns. contain **particles** of highly fluorinated ion-exchange polymer having sulfonate functional groups [e.g., perfluoro(3,6-dioxa-4-methyl-7-octenesulfonyl fluoride)-tetrafluoroethylene copolymer] with an ion exchange ratio of less than about 33. The compns. contain at least 25% polymer **particles** having a **particle** size of 2-30 nm.

IT **69462-70-0**, Perfluoro(3-oxa-4-pentenesulfonyl fluoride)-tetrafluoroethylene copolymer  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(compns. containing **particles** of highly fluorinated ion exchange polymer)

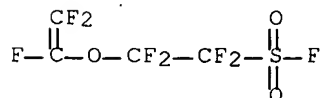
RN 69462-70-0 HCAPLUS

CN Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene (CA INDEX NAME)

CM 1

CRN 29514-94-1

CMF C4 F8 O3 S



CM 2

CRN 116-14-3

CMF C2 F4



IC ICM C08L027-18  
 ICS C08J003-03; C08J003-09; C08J005-18; C08J005-22; D01F006-32;  
 C08J007-04  
 CC 37-6 (Plastics Manufacture and Processing)  
 IT Ion exchangers  
 (comps. containing **particles** of highly fluorinated ion  
 exchange polymer)  
 IT Fluoropolymers, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered  
 material use); USES (Uses)  
 (sulfonate group-containing; comps. containing **particles** of  
 highly fluorinated ion exchange polymer)  
 IT 26654-97-7 **69462-70-0**, Perfluoro(3-oxa-4-pentenesulfonyl  
 fluoride)-tetrafluoroethylene copolymer  
 RL: POF (Polymer in formulation); TEM (Technical or engineered  
 material use); USES (Uses)  
 (comps. containing **particles** of highly fluorinated ion  
 exchange polymer)  
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN  
 THE RE FORMAT

L28 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1993:518964 HCAPLUS Full-text  
 DOCUMENT NUMBER: 119:118964  
 TITLE: Manufacture of fluoropolymer-fiber composites  
 INVENTOR(S): Logothetis, Anestis L.  
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA  
 SOURCE: U.S., 5 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. ----- -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
US 5194484	A	19930316	US 1991-765634	199109 25
WO 9306156	A1	19930401	WO 1992-US7905	199209 24

W: JP, RU

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE

EP 605577	A1	19940713	EP 1992-920605	199209 24
EP 605577	B1	19991215		
R: DE, ES, FR, GB, NL				
ES 2141726	T3	20000401	ES 1992-920605	199209 24
PRIORITY APPLN. INFO.:			US 1991-765634	A 199109 25
			WO 1992-US7905	W 199209 24

AB The title composites, having good phys. properties and chemical resistance, and useful in chemical process equipment, are manufactured by mixing a fibrous material with an aqueous fluoropolymer dispersion, precipitating the fluoropolymer from the dispersion to form a structure of fluoropolymer **particles** dispersed on the fibrous material, drying the structure, and consolidating the structure by heat and pressure. A composite of Teflon PFA with chopped graphite fibers (containing 21.2% fiber) showed tensile strength 20,857 lb/in.2 and elongation 5%.

IT **69462-70-0P**

RL: PREP (Preparation)  
(composites with fibers, manufacture of)

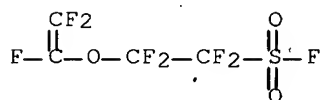
RN 69462-70-0 HCAPLUS

CN Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene (CA INDEX NAME)

CM 1

CRN 29514-94-1

CMF C4 F8 O3 S



CM 2

CRN 116-14-3

CMF C2 F4



IC ICM C08K003-40  
ICS C08K003-04; B32B027-00

INCL 524494000

CC 38-2 (Plastics Fabrication and Uses)

IT 9011-17-0P, Hexafluoropropene-vinylidene fluoride copolymer  
25038-71-5P, Ethylene-tetrafluoroethylene copolymer 25067-11-2P,  
Hexafluoropropene-tetrafluoroethylene copolymer 25190-89-0P,  
Hexafluoropropene-tetrafluoroethylene-vinylidene fluoride copolymer  
26654-97-7P 26655-00-5P, Perfluoro(propyl vinyl  
ether)-tetrafluoroethylene copolymer 27029-05-6P,  
Propylene-tetrafluoroethylene copolymer 37626-13-4P.  
**69462-70-0P**

RL: PREP (Preparation)

(composites with fibers, manufacture of)

L28 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:57891 HCAPLUS Full-text

DOCUMENT NUMBER: 112:57891

TITLE: Stratified fibrous fluoropolymer compositions  
and process for forming such fluoropolymers  
INVENTOR(S): Carl, William P.; Tasset, Emmett L.; Aikman,  
Robert E., Jr.

PATENT ASSIGNEE(S): Dow Chemical Co., USA

SOURCE: U.S., 8 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 4859745	A	19890822	US 1987-136690	198712 22
PRIORITY APPLN. INFO.: US 1987-136690				198712 22

AB The title fluoropolymers, useful for water-wettable filtration membranes and diaphragms for chloroalkali cells, are prepared by polymerizing tetrafluoroethylene (I) in aqueous solns. containing dispersing agents and polymerization initiators, then copolymerizing I with fluorinated modifiers containing acid functional groups or convertible to acid groups, in the presence of the resulting PTFE to form highly porous fibrous fluoropolymers having the core comprising PTFE and the sheath comprising the copolymer. Thus, I was pressurized to 247 lb/in. in a reactor and polymerized 5 min at 60° in the presence of a solution containing H<sub>2</sub>O 4700, NH<sub>4</sub>O<sub>2</sub>C<sub>7</sub>H<sub>15</sub> 25, Na<sub>2</sub>HPO<sub>4</sub>·7H<sub>2</sub>O 18.9, NaH<sub>2</sub>PO<sub>4</sub>·H<sub>2</sub>O 15.6, and (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub> 3.0 g to give PTFE. Then, 216 g 2-(fluorosulfonyl)perfluoroethyl vinyl ether was added and copolymerized with I to form a copolymer on the surface of PTFE and give stratified water-wettable highly porous **particles**.

IT **69462-70-0P**

RL: PREP (Preparation)

(sheath with PTFE core, porous, wettable, manufacture of)

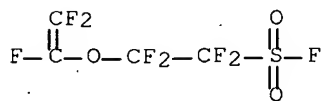
RN 69462-70-0 HCAPLUS

CN Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene (CA  
INDEX NAME)

CM 1

CRN 29514-94-1

CMF C4 F8 O3 S



CM 2

CRN 116-14-3

CMF C2 F4



IC ICM C08F259-08

INCL 525276000

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 72

IT 69462-70-0P 125120-69-6DP, hydrolyzed

RL: PREP (Preparation)

(sheath with PTFE core, porous, wettable, manufacture of)

=&gt; d 129 ibib abs hitstr hitind 1-8

L29 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:101411 HCAPLUS Full-text

DOCUMENT NUMBER: 142:337067

TITLE: Polymer encapsulation of **fine particles** by a supercritical antisolvent process

AUTHOR(S): Wang, Yulu; Pfeffer, Robert; Dave, Rajesh; Enick, Robert

CORPORATE SOURCE: New Jersey Center for Engineered Particulates, New Jersey Institute of Technology, Newark, NJ, 07102, USA

SOURCE: AIChE Journal (2005), 51(2), 440-455  
CODEN: AICEAC; ISSN: 0001-1541

PUBLISHER: John Wiley &amp; Sons, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Coating and encapsulation of **fine particles** with polymer using a supercrit. antisolvent (SAS) coating process was investigated in this research. Synthesized submicron silica particles were used as host particles and poly(lactide-co-glycolide) (PLGA), a biodegradable polymer used for controlled release of drugs, was chosen as the coating material. In the SAS coating process a suspension of silica particles in an acetone-polymer solution was sprayed through a capillary nozzle into supercrit. (SC) CO<sub>2</sub>, which acts as an antisolvent for the acetone. A rapid mutual diffusion between the SC CO<sub>2</sub> and

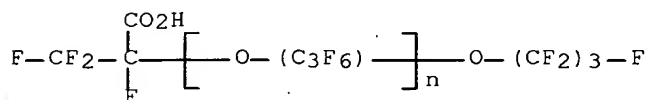
the acetone causes supersatn. of the polymer solution, leading to nucleation and precipitation of the polymer to encapsulate the silica particles. The operating parameters that have an effect on the coating process, such as polymer to particle weight ratio, polymer concentration, temperature, pressure, flow rate of polymer solution, and the addition of a SC CO2 soluble surfactant, were systematically studied. It is shown that the polymer to silica ratio and the polymer concentration are critical for the successful encapsulation of silica particles with min. agglomeration.

IT 90317-74-1, Krytox 157FSL

RL: NUU (Other use, unclassified); USES (Uses)  
(surfactant; for poly(lactide-glycolide) encapsulation of  
**fine silica particles** by supercrit. antisolvent  
process)

RN 90317-74-1 HCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -(1-carboxy-1,2,2,2-tetrafluoroethyl)- $\omega$ -(1,1,2,2,3,3,3-  
heptafluoropropoxy)- (CA INDEX NAME)



CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 46

IT Solvents

(antisolvents; poly(lactide-glycolide) encapsulation of  
**fine silica particles** by supercrit. antisolvent  
process)

IT Flow

(effect on poly(lactide-glycolide) encapsulation of **fine**  
**silica particles** by supercrit. antisolvent process)

IT Polyoxyalkylenes, uses

RL: NUU (Other use, unclassified); USES (Uses)  
(fluorine-containing, surfactant; for poly(lactide-glycolide)  
encapsulation of **fine silica particles** by  
supercrit. antisolvent process)

IT Surfactants

(for poly(lactide-glycolide) encapsulation of **fine**  
**silica particles** by supercrit. antisolvent process)

IT Agglomeration

Encapsulation

Particle size

Particle size distribution

Particles

Solubility

Supercritical fluids

Ternary phase diagram

(poly(lactide-glycolide) encapsulation of **fine silica**  
**particles** by supercrit. antisolvent process)

IT Polyesters, properties

RL: PEP (Physical, engineering or chemical process); PRP  
(Properties); PYP (Physical process); PROC (Process)  
(poly(lactide-glycolide) encapsulation of **fine silica**  
**particles** by supercrit. antisolvent process)

IT Fluoropolymers, uses

RL: NUU (Other use, unclassified); USES (Uses)  
 (polyoxyalkylene-, surfactant; for poly(lactide-glycolide) encapsulation of **fine silica particles** by supercrit. antisolvent process)

IT Fluoropolymers, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (surfactant; for poly(lactide-glycolide) encapsulation of **fine silica particles** by supercrit. antisolvent process)

IT 7631-86-9, Silica, properties 26780-50-7, Resomer RG 502  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)  
 (poly(lactide-glycolide) encapsulation of **fine silica particles** by supercrit. antisolvent process)

IT 67-64-1, Acetone, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (solvent; poly(lactide-glycolide) encapsulation of **fine silica particles** by supercrit. antisolvent process)

IT 124-38-9, Carbon dioxide, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (supercrit. fluid; poly(lactide-glycolide) encapsulation of **fine silica particles** by supercrit. antisolvent process)

IT 74049-08-4, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodecyl acrylate homopolymer **90317-74-1**, Krytox 157FSL 97002-50-1, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodecyl acrylate-styrene copolymer  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (surfactant; for poly(lactide-glycolide) encapsulation of **fine silica particles** by supercrit. antisolvent process)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:159608 HCAPLUS Full-text

DOCUMENT NUMBER: 134:216296

TITLE: Axial seals comprising of perfluoropolyether-based magnetic fluids

INVENTOR(S): Takeishi, Toshiyuki; Imamoto, Yoshimi

PATENT ASSIGNEE(S): Nok Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2001060506	A	20010306	JP 1999-236391	199908 24
PRIORITY APPLN. INFO.:			JP 1999-236391	199908 24

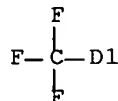
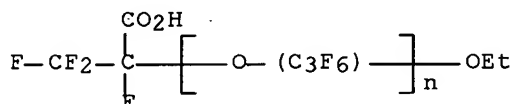
AB The surfaces of the seals which contact with organic solvents and magnetic fluids are treated with F-containing surface treatment agents. Perfluoropolyether base oil may be  $F[CF(CF_3)CF_2O]_nR_f$ ,  $R_fO[CF_2CF(CF_3)O]_m(CF_2O)_pR_f$ ,  $R_fO(CF_2CF_2O)_r(CF_2O)_sR_f$ , or  $F(CF_2CF_2O)_tR_f$  ( $R_f$  = perfluoro lower alkyl;  $n, m, p, r, s, t$  = integer of  $\geq 5$ ). The magnetic fluids may be those prepared by dispersion of magnetic **fine-grain particles** in perfluoroether oils using F-containing surfactants. The seals showed excellent resistance to pressure.

IT **83606-65-9**

RL: DEV (Device component use); USES (Uses)  
(magnetic fluid base and surface coating; coating of seal surface with perfluoropolyethers for pressure-resistant axial seals comprising of magnetic fluids)

RN 83606-65-9 HCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -(1-carboxy-1,2,2,2-tetrafluoroethyl)- $\omega$ -  
[tetrafluoro(trifluoromethyl)ethoxy]-, sodium salt (9CI) (CA INDEX NAME)



4 (D1-F)

● Na

IC ICM H01F001-34

ICS C09K003-10; F16J015-43

CC 77-8 (Magnetic Phenomena)

Section cross-reference(s): 47

IT **83606-65-9** 329009-04-3

RL: DEV (Device component use); USES (Uses)

(magnetic fluid base and surface coating; coating of seal surface with perfluoropolyethers for pressure-resistant axial seals comprising of magnetic fluids)

L29 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:638530 HCAPLUS Full-text

DOCUMENT NUMBER: 131:266071

TITLE: Magnetic fluid seals for organic solvents

INVENTOR(S): Takeishi, Toshiyuki; Yamamoto, Akira; Imamoto, Yoshimi; Koda, Yuzuru; Kanno, Takao

PATENT ASSIGNEE(S): NOK Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11273930	A	19991008	JP 1998-90857	19980319
JP 3503469	B2	20040308	JP 1998-90857	19980319

PRIORITY APPLN. INFO.: 19980319

OTHER SOURCE(S): MARPAT 131:266071

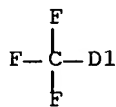
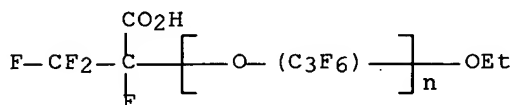
AB The magnetic fluid contains magnetic **fine-grain particles** dispersed in a perfluoropolyether base oil F[CF(CF<sub>3</sub>)CF<sub>2</sub>O]<sub>m</sub>Rf (Rf = perfluoroalkyl; m = proper number of ≥5), using (1) F[CF(CF<sub>3</sub>)CF<sub>2</sub>O]<sub>n</sub>CF(CF<sub>3</sub>)COOM (M = alkali metals; n = 4-50), (2) F[CF(CF<sub>3</sub>)CF<sub>2</sub>O]<sub>p</sub>CF(CF<sub>3</sub>)CONH(CH<sub>2</sub>)<sub>q</sub>NH<sub>2</sub> (p = 4-50; q = 2-20) or F[CF(CF<sub>3</sub>)CF<sub>2</sub>O]<sub>p</sub>CF(CF<sub>3</sub>)CONH(CH<sub>2</sub>CH<sub>2</sub>NH)<sub>r</sub>H (p = 4-50; r = 1-6). The fluid shows stable sealing characteristics even under contact with liquid or gaseous organic solvents. The magnetic fluid is suitable as a sealing material for vacuum apparatus

IT 83606-65-9

RL: TEM (Technical or engineered material use); USES (Uses)  
(perfluoropolyether-based magnetic fluid seals with resistance to organic solvents)

RN 83606-65-9 HCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
α-(1-carboxy-1,2,2,2-tetrafluoroethyl)-ω-[tetrafluoro(trifluoromethyl)ethoxy]-, sodium salt (9CI) (CA INDEX NAME)



4 (D1-F)

● Na

IC ICM H01F001-34

ICS C08K003-22; C08L071-00; C09K003-10

CC 77-8 (Magnetic Phenomena)

Section cross-reference(s): 51

IT 1317-61-9, Iron oxide (Fe<sub>3</sub>O<sub>4</sub>), uses 83606-65-9

193768-27-3

RL: TEM (Technical or engineered material use); USES (Uses)

(perfluoropolyether-based magnetic fluid seals with resistance to organic solvents)

L29 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:556120 HCAPLUS Full-text

DOCUMENT NUMBER: 127:184721

TITLE: Magnetic fluid based on fluorinated compounds

INVENTOR(S): Yamamoto, Yasushi; Takeishi, Yoshiyuki; Kouda, Yutaka; Minagawa, Tomoko; Kanno, Takao

PATENT ASSIGNEE(S): NOK Corp., Japan

SOURCE: Ger. Offen., 5 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19701208	A1	19970717	DE 1997-19701208	19970115
JP 09260128	A	19971003	JP 1997-13154	19970110
JP 3463070	B2	20031105		
US 5718833	A	19980217	US 1997-784693	19970115
PRIORITY APPLN. INFO.:			JP 1996-23055	A 19960116

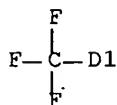
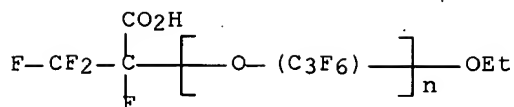
AB The magnetic fluid comprises **fine magnetic particles** dispersed in an oil based on a perfluoropolyether of the formula  $F[CF(CF_3)CF_2O]_mR_f$ , where  $R_f$  = perfluoroalkyl and  $m \geq 1$ , by means of a salt of a perfluoroether carboxylic acid of the formula  $F[CF(CF_3)CF_2O]_nCF(CF_3)COOM$ , where  $M$  = alkali metal or  $NH_4$  and  $n = 1-100$ , and amides of a perfluoroether carboxylic acid of the formulas  $F[CF(CF_3)CF_2O]_pCH(CF_3)CONH(CH_2)_qNH_2$ ,  $F[CF(CF_3)CF_2O]_pCF(CF_3)CONH(CH_2CH_2NH)_rH$ , or  $F[CF(CF_3)CF_2O]_pCF(CF_3)CONH(CH_2CH_2NH)_rCOCF(CF_3)[OCF_2CF(CF_3)]_pF$ , where  $p \geq 1$ ;  $q = 2-20$ ; and  $r = 1-6$ . This magnetic fluid shows a high affinity of the magnetic particles for the oil and can be used as a sealing material for vacuum apparatus

IT 83606-65-9

RL: TEM (Technical or engineered material use); USES (Uses)  
(magnetic fluids containing)

RN 83606-65-9 HCAPLUS

CN Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)],  
 $\alpha$ -(1-carboxy-1,2,2,2-tetrafluoroethyl)- $\omega$ -  
[tetrafluoro(trifluoromethyl)ethoxy]-, sodium salt (9CI) (CA INDEX NAME)



4 (D1-F)

● Na

IC ICM H01F001-44  
 ICS C08L071-02  
 ICA C07C059-135  
 CC 77-8 (Magnetic Phenomena)  
 IT **83606-65-9** 193766-47-1, Barrierta J 100V 193768-27-3  
 193768-28-4 193768-29-5 193768-30-8 193846-82-1 193846-83-2  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (magnetic fluids containing)

L29 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1993:661341 HCAPLUS Full-text  
 DOCUMENT NUMBER: 119:261341  
 TITLE: Fluorine-containing magnetic fluid composition  
 INVENTOR(S): Yamamoto, Atsuhiko; Yabe, Shunichi; Yokochi, Atsushi  
 PATENT ASSIGNEE(S): Nippon Seiko Kk, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05166619	A	19930702	JP 1991-335085	19911218
JP 3331605	B2	20021007	JP 1991-335085	19911218

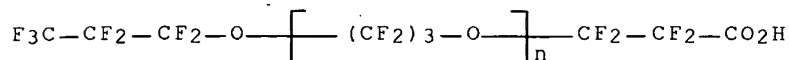
PRIORITY APPLN. INFO.: JP 1991-335085

AB The composition contains ferromagnetic **fine particles**, a perfluoro solvent, and perfluoro surfactant whose hydrophobic groups consist of normal hydrocarbons. The fluid showed low viscosity.

IT **120895-92-3**  
 RL: USES (Uses)  
 (surfactant, magnetic fluid containing, for low viscosity)

RN 120895-92-3 HCAPLUS

CN Poly[oxy(1,1,2,2,3,3-hexafluoro-1,3-propanediyl)],  
 $\alpha$ -(2-carboxy-1,1,2,2-tetrafluoroethyl)- $\omega$ -(1,1,2,2,3,3,3-heptafluoropropoxy)- (CA INDEX NAME)



IC ICM H01F001-28  
 CC 77-8 (Magnetic Phenomena)  
 Section cross-reference(s): 46  
 IT 105060-59-1, Demnum S 100 **120895-92-3**  
 RL: USES (Uses)  
 (surfactant, magnetic fluid containing, for low viscosity)

L29 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:40420 HCAPLUS Full-text

DOCUMENT NUMBER: 106:40420

TITLE: Preparation, characterization and catalytic properties of perfluorosulfonated ion-exchange membranes containing surface-concentrated, hydrated ruthenium oxide particles

AUTHOR(S): Michas, A.; Kelly, J. M.; Durand, R.; Pineri, M.; Coey, J. M. D.

CORPORATE SOURCE: Dep. Rech. Fondam., Cent. Etud. Nucl. Grenoble, Grenoble, 38041, Fr.

SOURCE: Journal of Membrane Science (1986), 29(3), 239-57

CODEN: JMESDO; ISSN: 0376-7388

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Microparticulate RuO<sub>2</sub>.xH<sub>2</sub>O ppts. were prepared in Nafion ion-exchange membranes by treatment of the Ru-exchanged membranes with KOH or NaOH solns. These ppts. are concentrated near both membrane surfaces giving a concentration profile which depends on the conditions of preparation. The particle size, nature and distribution across the membrane thickness of the ppts. were characterized by scanning electron microprobe anal., TEM, electron microdiffraction and x-ray diffraction. The oxide is present as very **fine** crystalline spherical **particles** whose size ranges from 200 to 1000 Å. Precipitation was also achieved at 1 side only in free-standing membranes with RuO<sub>2</sub>.xH<sub>2</sub>O at 1 side and UO<sub>3</sub>.xH<sub>2</sub>O at the other. Nafion-coated modified electrodes containing precipitated RuO<sub>2</sub>.xH<sub>2</sub>O particles catalyze the oxidation of H<sub>2</sub>O to O<sub>2</sub> and the reduction of O<sub>2</sub> to H<sub>2</sub>O<sub>2</sub> and H<sub>2</sub>O in the presence of mediators. The relevance of these results to the construction of solid polymer electrolyte devices containing active electrocatalysis is discussed.

IT **31175-20-9, Nafion**

RL: PRP (Properties)

(ion-exchanging membranes, with ruthenium oxide catalysts)

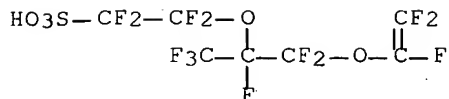
RN 31175-20-9 HCAPLUS

CN Ethanesulfonic acid, 2-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-, polymer with 1,1,2,2-tetrafluoroethene (CA INDEX NAME)

CM 1

CRN 29311-67-9

CMF C7 H F13 O5 S



CM 2

CRN 116-14-3

CMF C2 F4



CC 72-9 (Electrochemistry)

Section cross-reference(s): 67

IT 31175-20-9, Nafion

RL: PRP (Properties)

(ion-exchanging membranes, with ruthenium oxide catalysts)

L29 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:192032 HCAPLUS Full-text

DOCUMENT NUMBER: 104:192032

ORIGINAL REFERENCE NO.: 104:30315a,30318a

TITLE: Pollutant sampler for measurements of  
atmospheric acidic dry depositionAUTHOR(S): Knapp, Kenneth T.; Durham, Jack L.; Ellestad,  
Thomas G.CORPORATE SOURCE: Atmos. Sci. Res. Lab., U. S. Environ. Prot.  
Agency, Research Triangle Park, NC, 27711, USASOURCE: Environmental Science and Technology (1986),  
20(6), 633-7

CODEN: ESTHAG; ISSN: 0013-936X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An acidic pollutant sampler for dry deposition monitoring was designed and evaluated in laboratory and field studies. The system, which is modular and simple to operate, samples gaseous  $\text{HNO}_3$ ,  $\text{NH}_3$ ,  $\text{SO}_2$ , and  $\text{NO}_2$  and particulate  $\text{SO}_4^{2-}$ ,  $\text{NO}_3^-$ , and  $\text{NH}_4^+$  and is made of Teflon [9002-84-0] to minimize trace reactive gas sorption. Particles of size .gtorsim.2  $\mu$  are removed with a cyclone, which is followed in the system by a transition flow reactor (TFR) containing a nylon liner for collection of a constant fraction of  $\text{HNO}_3$  and a Nafion [ 31175-20-9] linear for collection of a constant fraction of  $\text{NH}_3$ . The TFR is followed by 3-filter holder containing, in order, a Teflon filter to collect the **fine particles**, a nylon filter to collect  $\text{HNO}_3$ , and an oxalic acid [144-62-7]-impregnated glass-fiber filter to collect  $\text{NH}_3$ . The backup nylon and oxalic acid filters collect the gaseous  $\text{HNO}_3$  and  $\text{NH}_3$  that penetrated the TFR and that from the decomposition of the  $\text{NH}_4\text{NO}_3$  collected on the Teflon filter. The final section of the system contains 2 glass-fiber filters impregnated with triethanolamine [102-71-6] for  $\text{SO}_2$  and  $\text{NO}_2$  collection. The analyses for  $\text{HNO}_3$ ,  $\text{NO}_3^-$ ,  $\text{NO}_2$ ,  $\text{SO}_4^{2-}$ , and  $\text{SO}_2$  are done by extracting the exposed collectors and running aliquots on an ion chromatograph. The  $\text{NH}_3$  and

NH<sub>4</sub><sup>+</sup> are determined by either a sp. ion electrode or the indophenol automated analyzer colorimetric method. Results from both laboratory evaluation and field studies are presented. In 7-wk-long studies, the average difference between samples from parallel runs for gaseous HNO<sub>3</sub> was 4.6% with a standard deviation of 3.7.

IT **31175-20-9**

RL: OCCU (Occurrence)

(adsorbents in sampling system for gaseous ammonia dry deposition from atmospheric)

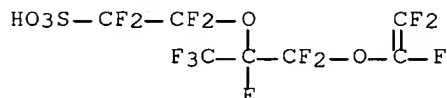
RN 31175-20-9 HCAPLUS

CN Ethanesulfonic acid, 2-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-, polymer with 1,1,2,2-tetrafluoroethene (CA INDEX NAME)

CM 1

CRN 29311-67-9

CMF C7 H F13 O5 S



CM 2

CRN 116-14-3

CMF C2 F4



CC 59-1 (Air Pollution and Industrial Hygiene)

Section cross-reference(s): 79

IT **31175-20-9**

RL: OCCU (Occurrence)

(adsorbents in sampling system for gaseous ammonia dry deposition from atmospheric)

L29 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:156456 HCAPLUS Full-text

DOCUMENT NUMBER: 104:156456

ORIGINAL REFERENCE NO.: 104:24653a,24656a

TITLE: Perfluorosulfonated ion exchange membranes containing surface-concentrated ruthenium and uranium hydrated oxide particles. Their characterization and possible catalytic applications

AUTHOR(S): Michas, A.; Durand, R.; Jesior, J. C.; Kelly, J. M.; Pineri, M.

CORPORATE SOURCE: Groupe Phys. Chim. Mol., SPh/DRF/CEN-G,

SOURCE: Grenoble, 38041, Fr.  
 Annales de Physique (Paris, France) (1986),  
 11(1, Suppl., Journ. Films Org. Modif. Surf.  
 Propr. Induites), 121-4  
 CODEN: ANPHAJ; ISSN: 0003-4169

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Particulate hydrated metal oxides were prepared in situ in perfluorinated ion-exchange membranes by treatment of Ru ion- or uranyl ion-exchanged Nafion samples with NaOH or KOH solns. These ppts. were characterized by x-ray fluorescence, x-ray diffraction, scanning electron microprobe, TEM, and ESCA. The oxide particles are concentrated near the surface of the membrane, giving a profile which is determined by the conditions of the reaction. Most of the oxide ppts. are present as very **fine particles** ( $\leq 200$  Å). Some larger particles (.apprx.1000 Å) are also present, which for the U oxide are crystalline. Possible applications to catalysis and electrocatalysis are discussed.

IT 31175-20-9

RL: PRP (Properties)

(ion exchange of ruthenium and uranium on, in catalyst preparation)

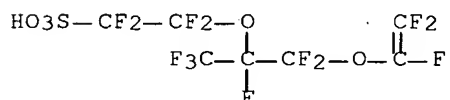
RN 31175-20-9 HCAPLUS

CN Ethanesulfonic acid, 2-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-, polymer with 1,1,2,2-tetrafluoroethene (CA INDEX NAME)

CM 1

CRN 29311-67-9

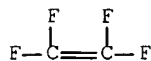
CMF C7 H F13 O5 S



CM 2

CRN 116-14-3

CMF C2 F4



CC 66-4 (Surface Chemistry and Colloids)

Section cross-reference(s): 67, 75

IT 31175-20-9

RL: PRP (Properties)

(ion exchange of ruthenium and uranium on, in catalyst preparation)

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L30 ANSWER 1 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:1025686 HCAPLUS Full-text  
 DOCUMENT NUMBER: 147:345293  
 TITLE: Photopolymerizable compositions with good sensitivity  
 INVENTOR(S): Kawai, Takeshi; Nakajima, Takuya; Sakashita, Makiko  
 PATENT ASSIGNEE(S): Nara Institute of Science and Technology, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007231178	A	20070913	JP 2006-55459	20060301
PRIORITY APPLN. INFO.:			JP 2006-55459	20060301

AB Title compns. comprise (A) monomers, (B) photoinitiators, and (C) **fine** semiconductor **particles** as sensitizers. Thus, a composition comprising 1-(3-acryloyloxypropyl)-3-methylimidazolium bis(trifluoromethanesulfonyl)imide, 0.01% 2-dimethylaminoethanethiol-modified cadmium tellurium **fine particles**, and 1.4% diphenyliodonium hexafluorophosphate was irradiated to give a solid article.

IT 948999-90-4P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photopolymerizable compns. with good sensitivity)

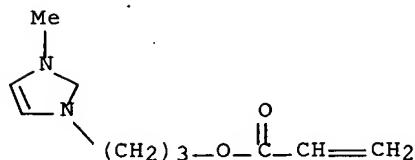
RN 948999-90-4 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-[3-[(1-oxo-2-propen-1-yl)oxy]propyl]-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1), homopolymer (CA INDEX NAME)

CM 1

CRN 871303-31-0

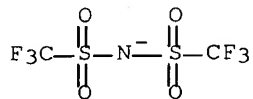
CMF C10 H15 N2 O2



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CM 2

CRN 98837-98-0  
CMF C2 F6 N O4 S2



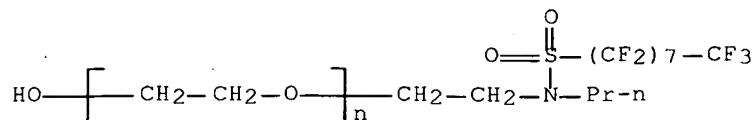
CC 38-3 (Plastics Fabrication and Uses)  
IT Semiconductor materials  
(**fine particles**, sensitizer;  
photopolymerizable compns. with good sensitivity)  
IT Group VIA elements  
RL: CAT (Catalyst use); USES (Uses)  
(semiconductor **fine particles**, sensitizer;  
photopolymerizable compns. with good sensitivity)  
IT **948999-90-4P**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM  
(Technical or engineered material use); PREP (Preparation); USES  
(Uses)  
(photopolymerizable compns. with good sensitivity)

L30 ANSWER 2 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:558786 HCAPLUS Full-text  
DOCUMENT NUMBER: 145:73378  
TITLE: Ink-jet record paper containing surfactant  
INVENTOR(S): Miyazawa, Kazuhiro; Suda, Yoshihiko; Sone,  
Yosuke; Suzuki, Shinichi; Tsubaki, Yoshinori  
PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006150724	A	20060615	JP 2004-343787	20041129
PRIORITY APPLN. INFO.:			JP 2004-343787	20041129

AB The title paper has a porous ink-receptor layer containing inorg. **fine particles**, a hydrophilic resin crosslinked by light irradiation, and surfactants on base paper, wherein the surfactant is a nonionic surfactant or a betaine surfactant. The paper shows improved conveyance during printing.  
IT **52550-45-5**, Megafac F 144D  
RL: TEM (Technical or engineered material use); USES (Uses)  
(surfactant in ink-jet record paper)  
RN 52550-45-5 HCAPLUS  
CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[2-[[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctyl)sulfonyl]propylamino]ethyl]- $\omega$ -

hydroxy- (CA INDEX NAME)



CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 9002-92-0, Emulgen 109 **52550-45-5**, Megafac F 144D  
 57765-32-9, Megafac F 150 96352-55-5, Ftergent 400 206451-98-1, Lebon LD 36  
 RL: TEM (Technical or engineered material use); USES (Uses) (surfactant in ink-jet record paper)

L30 ANSWER 3 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2006:234095 HCAPLUS Full-text  
 DOCUMENT NUMBER: 144:301973  
 TITLE: Dry electrophotographic toners, their one-component developers, and method and apparatus for electrophotographic printing  
 INVENTOR(S): Fushimi, Hiroyuki; Uchinokura, Satoru  
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006072199	A	20060316	JP 2004-258299	20040906
PRIORITY APPLN. INFO.:				20040906

AB The toners, satisfying static friction coefficient of developer support surfaces 0.25-0.45, comprise THF-soluble polyester binders having ≤4% components with mol. weight ≤5 + 102 and Mw main peaks in 3 + 103-9 + 103 (measured by GPC), polymer charge controllers prepared from (A) sulfonate salt-containing monomers, (B) aromatic monomers having electron-withdrawing groups except for sulfonic acid groups, (C) (meth)acrylate ester monomers, and optionally (D) aromatic monomers except for B, and having volume resistivity 9.5-11.5 LogΩ.cm and ≤10% components with Mw ≤1 + 103, hydrophobically treated silica with primary particle size 0.01-0.03 μm, hydrophobically treated titanium oxide with primary particle size 0.01-0.03 μm, sp. surface area 60-140 m<sup>2</sup>/g, and 300 and 600 nm light transmittance ≥35 and ≥80%, resp., which is prepared by surface treatment of wet titanium oxide **fine particles** having ≥0.2% water-soluble components, and colorants. The toners show uniform static charge, good developability, and suppressed soiling of development rollers.

IT **406485-92-5P**, 2-Ethylhexyl acrylate-m-nitrophenylmaleimide-perfluorooctanesulfonic acid-styrene graft copolymer

**406485-96-9P**, Butyl acrylate-N-(3,4-dichlorophenyl)maleimide-perfluorooctanesulfonic acid graft copolymer

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(charge controller; dry electrophotog. toners containing polyester binders, specific polymer charge controllers, and additives)

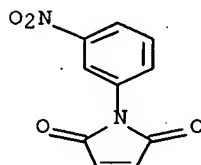
RN 406485-92-5 HCAPLUS

CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with ethenylbenzene, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-1-octanesulfonic acid and 1-(3-nitrophenyl)-1H-pyrrole-2,5-dione, graft (9CI) (CA INDEX NAME)

CM 1

CRN 7300-93-8

CMF C10 H6 N2 O4



CM 2

CRN 1763-23-1

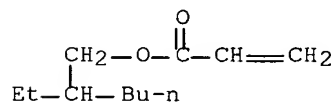
CMF C8 H F17 O3 S

HO<sub>3</sub>S—(CF<sub>2</sub>)<sub>7</sub>—CF<sub>3</sub>

CM 3

CRN 103-11-7

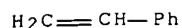
CMF C11 H20 O2



CM 4

CRN 100-42-5

CMF C8 H8



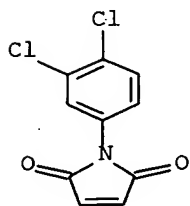
RN 406485-96-9 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 1-(3,4-dichlorophenyl)-1H-pyrrole-2,5-dione and 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 19844-27-0

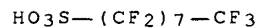
CMF C10 H5 Cl2 N O2



CM 2

CRN 1763-23-1

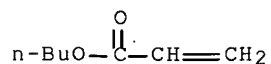
CMF C8 H F17 O3 S



CM 3

CRN 141-32-2

CMF C7 H12 O2



CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 406485-90-3P, 2-Acrylamido-2-methylpropanesulfonic acid-butyl acrylate-N-(3,4-dichlorophenyl)maleimide-styrene graft copolymer

**406485-92-5P**, 2-Ethylhexyl acrylate-m-nitrophenylmaleimide-perfluorooctanesulfonic acid-styrene graft copolymer

**406485-96-9P**, Butyl acrylate-N-(3,4-dichlorophenyl)maleimide-perfluorooctanesulfonic acid graft copolymer

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(charge controller; dry electrophotog. toners containing polyester binders, specific polymer charge controllers, and additives)

L30 ANSWER 4 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:493639 HCAPLUS Full-text

DOCUMENT NUMBER: 143:27782

TITLE: Soft polyurethane foams with good vibration properties and passenger posture retention for automotive seats

INVENTOR(S): Sasaki, Takayuki; Toyota, Yoshinori; Horie, Akio; Ito, Takashi; Hashimoto, Satoru; Asobe, Kunio

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan; NHK Spring Co., Ltd.

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005052020	A1	20050609	WO 2004-JP17615	20041126
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2005179653	A	20050707	JP 2004-340325	20041125
AU 2004293315	A1	20050609	AU 2004-293315	20041126
EP 1688448	A1	20060809	EP 2004-819457	20041126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1882631	A	20061220	CN 2004-80034522	20041126
US 2006205834	A1	20060914	US 2006-431818	20060511
PRIORITY APPLN. INFO.:			JP 2003-395465	A 200311

26

WO 2004-JP17615

W

200411

26

AB Title foams are obtained by reacting a high-mol. polyoxyalkylene polyol or a polyol comprising the high-mol. polyoxyalkylene polyol and **fine** polymer **particles** dispersed therein with a polyisocyanate compound in the presence of a catalyst, a blowing agent, and a foam stabilizer, wherein 0.00001-1 parts (based on 100 parts all active-hydrogen compds.) fluoropolymer with fluorine content 12-50% comprising fluoro(meth)acrylate, alkyl (meth)acrylate having a long chain alkyl or oxyalkylene, and optionally polymerizable monomers is used as the foam stabilizer. Thus, a polyol solution comprising ethylene oxide-propylene oxide copolymer mixture containing containing 35% acrylonitrile-styrene copolymer **fine particles**, 103.0, diethanolamine 0.5, polyoxyethylene tetraol 0.5, TEDA-L 33 (triethylenediamine) 0.42, bis[(2-dimethylamino)ethyl] ether 0.10, L 3601 (silicone foam stabilizer) 0.7, stearyl acrylate-2-perfluorooctylethyl acrylate copolymer 0.01, and water 3.3 parts and 105 parts Coronate 1021 were each fed into an injection-molding machine and reaction injection-molded to give a foam, showing total d. 47.8, core d. 44.5, 25% hardness 267, core elasticity 66, tear strength 7.5, tensile strength 163, elongation 109, dry compression set 3.1, wet compression set 10.9, hysteresis loss 16.9, resonant vibration 3.5, resonant power 4.6, and good moldability.

IT **852996-76-0 853054-60-1**, Ethylene oxide-propylene oxide copolymer monoacrylate-perfluorooctylsulfonylpropylaminoethyl acrylate graft copolymer

RL: MOA (Modifier or additive use); USES (Uses)

(foam stabilizer; soft polyurethane foams with good vibration properties and passenger posture retention for automotive seats)

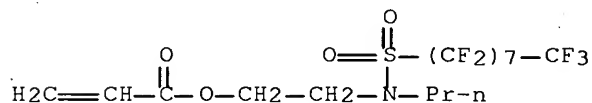
RN 852996-76-0 HCAPLUS

CN 2-Propenoic acid, 2-[[[(heptadecafluorooctyl)sulfonyl]propylamino]ethyl ester, polymer with methyloxirane and oxirane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2357-60-0

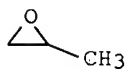
CMF C16 H14 F17 N O4 S



CM 2

CRN 75-56-9

CMF C3 H6 O



CM 3

CRN 75-21-8

CMF C2 H4 O



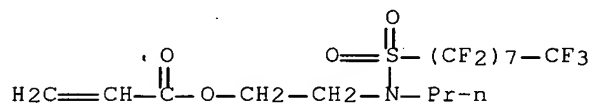
RN 853054-60-1 HCAPLUS

CN 2-Propenoic acid, 2-[[heptadecafluorooctyl)sulfonyl]propylamino]ethyl ester, polymer with methyloxirane polymer with oxirane mono-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2357-60-0

CMF C16 H14 F17 N O4 S



CM 2

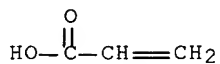
CRN 9041-78-5

CMF (C3 H6 O . C2 H4 O)x . C3 H4 O2

CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

CRN 9003-11-6

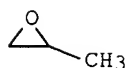
CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 5

CRN 75-56-9

CMF C3 H6 O



CM 6

CRN 75-21-8

CMF C2 H4 O



IC ICM C08G018-48  
ICS C08G018-00; C08L075-08; C08G101-00  
CC 38-3 (Plastics Fabrication and Uses)  
IT 9003-54-7, Acrylonitrile-styrene copolymer 25014-41-9D,  
Polyacrylonitrile, polyol derivs., polymers with polyoxyalkylenes  
and polyisocyanates  
RL: MOA (Modifier or additive use); USES (Uses)  
(**fine particle**; soft polyurethane foams with  
good vibration properties and passenger posture retention for  
automotive seats)  
IT 90718-04-0, 2-Perfluorooctylethyl acrylate-stearyl acrylate  
copolymer **852996-76-0 853054-60-1**, Ethylene  
oxide-propylene oxide copolymer monoacrylate-  
perfluorooctylsulfonylpropylaminoethyl acrylate graft copolymer  
RL: MOA (Modifier or additive use); USES (Uses)  
(foam stabilizer; soft polyurethane foams with good vibration  
properties and passenger posture retention for automotive seats)  
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L30 ANSWER 5 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:13797 HCAPLUS Full-text  
DOCUMENT NUMBER: 142:103449  
TITLE: Optical films with improved interlayer adhesion  
for polarizers and display devices  
INVENTOR(S): Moto, Takahiro  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005004163	A	20050106	JP 2003-324183	200309 17
US 2006227695	A1	20061012	US 2006-568662	200602 17
PRIORITY APPLN. INFO.:			JP 2002-285818	A 200209 30
			JP 2003-140498	A 200305 19
			JP 2003-324183	A 200309 17
			JP 2003-389263	A 200311 19
			WO 2004-JP14012	W 200409 17

AB The optical films comprise transparent substrates (e.g., PET) and optical layers containing light-transmitting **fine particles** having **fine** raised parts (e.g., composed of PMMA and silica) dispersed in binder polymers. The optical films show good dispersibility of the light-transmitting **fine particles**.

IT **813419-95-3P**, Caprolactone-Megafac 531A-PETA graft copolymer  
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM  
 (Technical or engineered material use); PREP (Preparation); USES  
 (Uses)

(comprised of actual and assumed monomers, low-n layer; optical films with improved interlayer adhesion for polarizers and display devices)

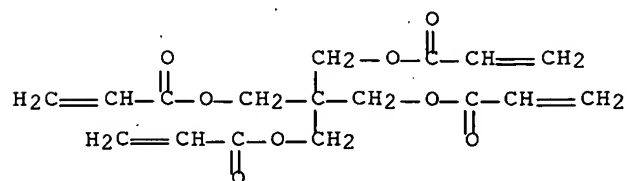
RN 813419-95-3 HCAPLUS

CN 2-Propenoic acid, 2-[[[(heptadecafluorooctyl)sulfonyl]propylamino]ethyl ester, polymer with 2-oxepanone and PETA, graft (9CI) (CA INDEX NAME)

CM 1

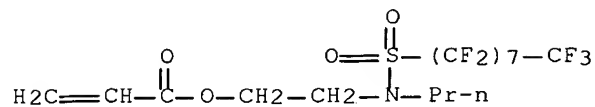
CRN 4986-89-4

CMF C17 H20 O8



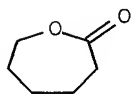
CM 2

CRN 2357-60-0  
CMF C16 H14 F17 N O4 S



CM 3

CRN 502-44-3  
CMF C6 H10 O2



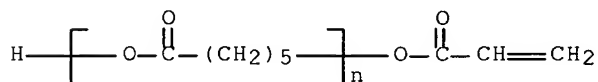
IT **601484-78-0P**, Aronix M 5300-Megafac 531A-PETA graft copolymer  
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(low-n layer; optical films with improved interlayer adhesion for polarizers and display devices)

RN 601484-78-0 HCAPLUS

CN 2-Propenoic acid, 2,2-bis[[ (1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[ (heptadecafluorooctyl)sulfonyl]propylamino]ethyl 2-propenoate and  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)

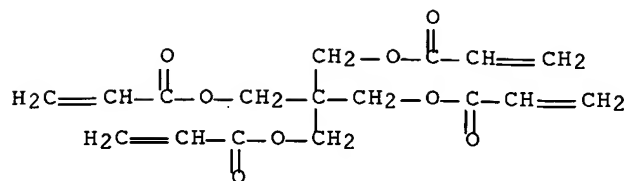
CM 1

CRN 97387-29-6  
CMF (C6 H10 O2)<sub>n</sub> C3 H4 O2  
CCI PMS



CM 2

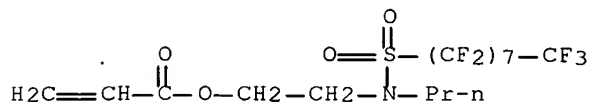
CRN 4986-89-4  
CMF C17 H20 O8



CM 3

CRN 2357-60-0

CMF C16 H14 F17 N O4 S



- IC ICM G02B001-11  
ICS B32B007-02; B32B027-04; G02B001-10; G02B005-30; G02F001-1335;  
G02F001-1335
- CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
Section cross-reference(s): 38, 73
- IT Acrylic polymers, uses  
RL: DEV (Device component use); MOA (Modifier or additive use); TEM  
(Technical or engineered material use); USES (Uses)  
(crosslinked **particles**, light-transmitting **fine particle** component; optical films with improved  
interlayer adhesion for polarizers and display devices)
- IT 7631-86-9, Silica, uses  
RL: DEV (Device component use); MOA (Modifier or additive use); TEM  
(Technical or engineered material use); USES (Uses)  
(Aerosil, Sylysia, Snowtex C, Snowtex, MEK-ST, light-transmitting  
**fine particle** component; optical films with  
improved interlayer adhesion for polarizers and display devices)
- IT 13463-67-7, Titania, uses  
RL: DEV (Device component use); MOA (Modifier or additive use); TEM  
(Technical or engineered material use); USES (Uses)  
(ST 01, light-transmitting **fine particle**  
component; optical films with improved interlayer adhesion for  
polarizers and display devices)
- IT 1344-28-1, Aluminasol 520, uses  
RL: DEV (Device component use); MOA (Modifier or additive use); TEM  
(Technical or engineered material use); USES (Uses)  
(colloidal, light-transmitting **fine particle**  
component; optical films with improved interlayer adhesion for  
polarizers and display devices)
- IT **813419-95-3P**, Caprolactone-Megafac 531A-PETA graft copolymer  
RL: DEV (Device component use); IMF (Industrial manufacture); TEM  
(Technical or engineered material use); PREP (Preparation); USES  
(Uses)  
(comprised of actual and assumed monomers, low-n layer; optical  
films with improved interlayer adhesion for polarizers and

- display devices)
- IT 7440-22-4P, Silver, preparation  
 RL: DEV (Device component use); IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (light-transmitting **fine particle** component;  
 optical films with improved interlayer adhesion for polarizers and display devices)
- IT 1314-13-2, Zinc oxide, uses 9003-53-6, Polystyrene 9011-14-7, Poly(methyl methacrylate) 67256-35-3, Aerosil MOX 170 521322-95-2, MX 150  
 RL: DEV (Device component use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (light-transmitting **fine particle** component;  
 optical films with improved interlayer adhesion for polarizers and display devices)
- IT **601484-78-0P**, Aronix M 5300-Megafac 531A-PETA graft copolymer  
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (low-n layer; optical films with improved interlayer adhesion for polarizers and display devices)

L30 ANSWER 6 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:1014309 HCAPLUS Full-text  
 DOCUMENT NUMBER: 142:30157  
 TITLE: Curable compositions, antireflective films, polarizing sheets, and display devices  
 INVENTOR(S): Kato, Eiichi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004331744	A	20041125	JP 2003-127263	20030502
PRIORITY APPLN. INFO.: JP 2003-127263				20030502

- AB The compns. contain (A)  $\geq 1$  silyl-terminated polymer coupling compds. (R1O)3-aR2aSiXW (W = polyester repeating unit or radically polymerizable repeating unit with weight-average mol. weight 2000-20,000; X = divalent organic residue; R1 = aliphatic group, COR10; R10 = hydrocarbyl; R2 = hydrocarbyl; a = 0, 1) and (B)  $\geq 1$  silane coupling compds. In the antireflective films having high-refractive-index layers and low-refractive-index layers on transparent supports, the high-refractive-index layers are obtained by curing the compns. containing inorg. particles with  $n \geq 1.70$ . The polarizing sheets have the antireflective films as protective films of polarizing films. The antireflective films and the polarizing sheets are useful for plasma display panels, flat televisions, and liquid-crystal displays. The compns. give cured

IT 601484-78-0, Aronix M 5300-Megafac 531A-PETA copolymer

(antiglaring hard-coat layers; coupling compound-containing curable compns. for antireflective films of polarizing sheets of displays)

RN 601484-78-0 HCAPLUS

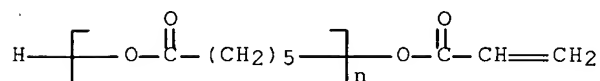
CN 2-Propenoic acid, 2,2-bis[[ (1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[ (heptadecafluorooctyl)sulfonyl]propylamino]ethyl 2-propenoate and  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 97387-29-6

$$\text{CMF} \quad (\text{C}_6 \text{ H}_{10} \text{ O}_2)_n \text{ C}_3 \text{ H}_4 \text{ O}_2$$

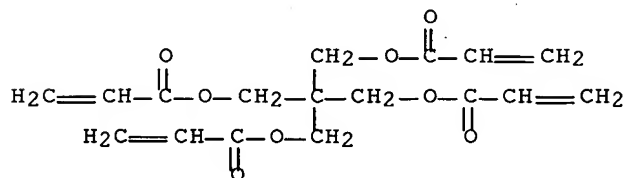
CCI PMS



CM 2

CRN 4986-89-4

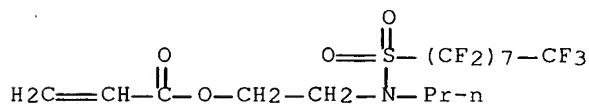
CMF C17 H20 O8



CM 3

CRN 2357-60-0

CMF C16 H14 F17 N O4 S



IC ICM C08L101-10

ICS B32B007-02; B32B027-00; C08K005-541; C09D167-00; C09D201-10;

G02B001-10; G02B001-11; G02B005-30

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 73

IT 1314-23-4, Zirconium oxide, uses 404900-61-4, DeSolite Z 7042  
404901-40-2, DeSolite Z 7041 **601484-78-0**, Aronix M  
5300-Megafac 531A-PETA copolymer  
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(antiglaring hard-coat layers; coupling compound-containing curable compns. for antireflective films of polarizing sheets of displays)

IT 7631-86-9, Aerosil 200, uses  
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(colloidal, **fine particles**; coupling compound-containing curable compns. for antireflective films of polarizing sheets of displays)

IT 13463-67-7, Titanium dioxide, uses 37368-09-5, Titanium zirconium oxide 147787-25-5, Aluminum titanium zirconium oxide  
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(**fine particles**; coupling compound-containing curable compns. for antireflective films of polarizing sheets of displays)

L30 ANSWER 7 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2004:842333 HCAPLUS Full-text  
DOCUMENT NUMBER: 141:366904  
TITLE: Curable compositions with good hardness and low cure shrinkage and cure-treated articles  
INVENTOR(S): Kato, Eiichi  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 64 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2004285320	A	20041014	JP 2003-321972	20030912
PRIORITY APPLN. INFO.:			JP 2002-277507	A 20020924
			JP 2003-59014	A 20030305

AB Title compns. comprise (A) monofunctional polyester macromers having weight average mol. weight  $\leq 2 + 104$  and polymerizable group at one end and (B) polymerization initiators. Thus, 26.4 g 1,6-hexanediol and 38 g tricyclo[5.2.1.0<sup>2.6</sup>]decane-8,9-dicarboxylic acid were polymerized to give a copolymer with hydroxy value 500  $\mu\text{mol/g}$  and carboxy value 500  $\mu\text{mol/g}$ , 50 g of which was mixed with 4.3 g methacrylic acid and 1.0 g tert-butylhydroquinone

IT 601484-78-0P

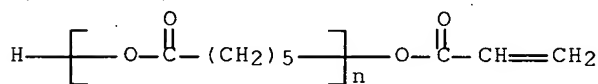
(low refractive coating; curable compns. with good hardness and low cure shrinkage and cure-treated articles)

CN 2-Propenoic acid, 2,2-bis[[ (1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[ (heptadecafluorooctyl)sulfonyl]propylamino]ethyl 2-propenoate and  $\alpha$ -hydro- $\omega$ -[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)

CRN 97387-29-6

$$\text{CMF} \quad (\text{C}_6 \text{ H}_{10} \text{ O}_2)_n \text{ C}_3 \text{ H}_4 \text{ O}_2$$

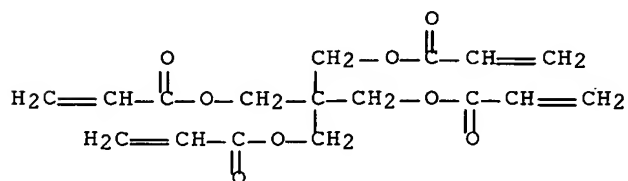
CCI      PMS



CM 2

CRN 4986-89-4

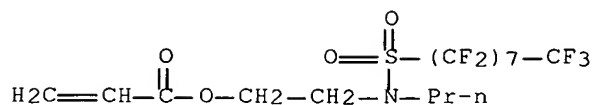
CMF C17 H20 O8



CM 3

CRN 2357-60-0

CMF C16 H14 F17 N O4 S

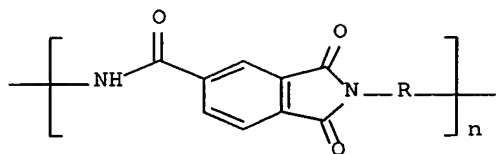


IC ICM C08F290-06  
 ICS C09D004-00; C09D005-00; C09D007-12; C09D167-06; G02B001-10  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38, 74  
 IT **601484-78-0P**  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (low refractive coating; curable compns. with good hardness and low cure shrinkage and cure-treated articles)

L30 ANSWER 8 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:700475 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:233273  
 TITLE: Multicolor image forming material by laser thermal transfer printing  
 INVENTOR(S): Shimomura, Akihiro; Fujimori, Junichi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 55 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2004237615	A	20040826	JP 2003-29877	20030206
PRIORITY APPLN. INFO.:			JP 2003-29877	20030206

GI



I

AB The material comprises (1) an image receiving sheet with image receiving layer (A) and (2)  $\geq 4$  kinds of thermal transfer sheets (B) having at least a light to heat converting layer containing a polyamide-imide resin binder I (R = bivalent linking group) and particles with smaller diameter than its thickness

and an image forming layer (C). Images are formed by superposing the layer C of the resp. sheet B with the layer A and exposing the superposed material to laser light for transferring exposed areas of the layer C to the layer A. The material shows high sensitivity and sharpness and is suited for digital direct color proof system.

IT 745817-32-7

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(surfactant; thermal-transfer printing sheet with light-to-heat converting layer containing polyamide-polyimide and **fine particles**)

RN 745817-32-7 HCAPLUS

CN 2-Propenoic acid, 2-[[ (heptadecafluorooctyl)sulfonyl]propylamino]ethyl ester, polymer with  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -methoxypoly[oxy(propyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 745817-13-4

CMF (C5 H10 O)<sub>n</sub> C4 H6 O2

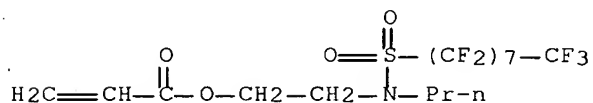
CCI IDS, PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 2357-60-0

CMF C16 H14 F17 N O4 S



IC ICM B41M005-40

ICS B41M005-26

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST multicolor thermal transfer printing material; light heat converting layer polyamide polyimide binder; **fine particle** fluoro surfactant light heat converting layer

IT Surfactants

(fluorosurfactants; thermal-transfer printing sheet with light-to-heat converting layer containing polyamide-polyimide and **fine particles**)

IT Polyimides, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(polyamide-; thermal-transfer printing sheet with light-to-heat converting layer containing polyamide-polyimide and **fine particles**)

IT Polyamides, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(polyimide-; thermal-transfer printing sheet with light-to-heat converting layer containing polyamide-polyimide and **fine particles**)

IT Thermal-transfer printing materials

(thermal-transfer printing sheet with light-to-heat converting layer containing polyamide-polyimide and **fine particles**)

IT 1344-28-1, Alumina sol100, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(colloidal; thermal-transfer printing sheet with light-to-heat converting layer containing polyamide-polyimide and **fine particles**)

IT 593259-12-2 **745817-32-7**

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(surfactant; thermal-transfer printing sheet with light-to-heat converting layer containing polyamide-polyimide and **fine particles**)

IT 7631-86-9, MEK ST, uses 25119-99-7, Vylomax HR 11NN 188653-14-7, Snowtex ZL

RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal-transfer printing sheet with light-to-heat converting layer containing polyamide-polyimide and **fine particles**)

L30 ANSWER 9 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:773791 HCAPLUS Full-text

DOCUMENT NUMBER: 137:296302

TITLE: Transparent and electrically conductive laminated films and their manufacture

INVENTOR(S): Hatakeyama, Kenichiro; Matsufuji, Akihiro; Nakamura, Satoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2002298666	A	20021011	JP 2001-95280	200103 29
PRIORITY APPLN. INFO.: JP 2001-95280				200103 29

AB Title films, with antireflective ability, consist of (A1) transparent substrates, (A2) unsatd. compound-crosslinked product-containing hard coat layers, and (A3) **fine** metal **particle**-containing elec. conductive and transparent layers and are prepared by forming A2 hard coats on substrates, then covering with A3, and irradiating with active energy radiation, preferably at  $\geq 550$  mJ/cm<sup>2</sup>. A polyester film was coated with a composition containing Kayarad DPHA and Irgacure 184, UV-cured, treated with elec. corona discharge, coated with Ag-Pd colloidal particle-containing solution, dried, covered with a composition containing Kayarad DPHA, Megafac 531A, and Irgacure 907, and cured at 750 mJ/cm<sup>2</sup> UV radiation to form a film showing resistivity 352  $\Omega$ /cm<sup>2</sup>, transparency 66%, average reflection 0.80%, and good scratch resistance.

IT **402829-65-6P**, Kayarad DPHA-Megafac 531A copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered

material use); PREP (Preparation); USES (Uses)

(transparent and elec. conductive coating; manufacture of transparent and elec. conductive laminated films involving UV radiation)

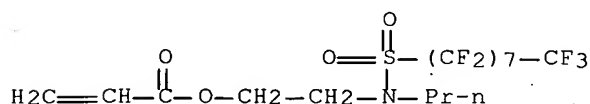
RN 402829-65-6 HCAPLUS

CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], polymer with 2-[[ (heptadecafluorooctyl)sulfonyl]propylamino]ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2357-60-0

CMF C16 H14 F17 N O4 S



CM 2

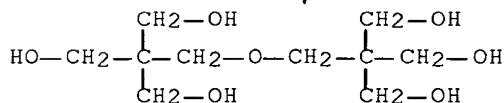
CRN 77641-99-7

CMF C10 H22 O7 . x C3 H4 O2

CM 3

CRN 126-58-9

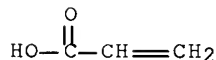
CMF C10 H22 O7



CM 4

CRN 79-10-7

CMF C3 H4 O2



IC ICM H01B013-00

ICS B05D003-06; B05D005-12; B05D007-04; B32B007-02; H01B005-14

CC 42-10 (Coatings, Inks, and Related Products)

IT 402829-65-6P, Kayarad DPHA-Megafac 531A copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(transparent and elec. conductive coating; manufacture of transparent and elec. conductive laminated films involving UV radiation)

L30 ANSWER 10 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:515733 HCAPLUS Full-text  
 DOCUMENT NUMBER: 137:86054  
 TITLE: Optical filters and display devices using them  
 INVENTOR(S): Kubota, Tadahiko; Inoue, Katsumi  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 2002196128	A	20020710	JP 2000-392893	200012 25
PRIORITY APPLN. INFO.:			JP 2000-392893	200012 25

AB The filters comprise transparent supports coated with (A) antireflective films consisting of high-refractive-index layers with n 1.65-2.40 and low-refractive-index layers with n 1.20-1.55 and (B) visible light-absorbing layers and/or IR-shielding filter layers cutting 750-1200-nm near IR ray. In the display devices, the filters are directly bonded on front glass sheets of plasma display panels. The filters show good antireflective property and improved color purity.

IT **440665-44-1P**

RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(low-refractive-index layers; optical filters having antireflective films for plasma display panels)

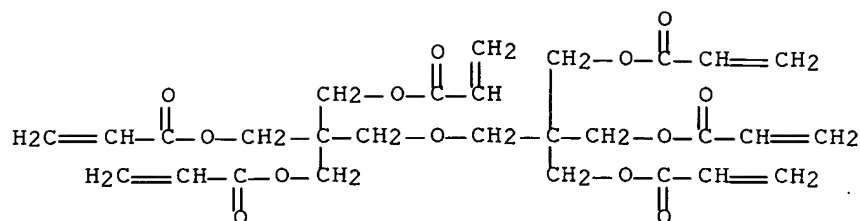
RN 440665-44-1 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[[(1-oxo-2-propenyl)oxy)methyl]propoxy)methyl]-2-[[[(1-oxo-2-propenyl)oxy)methyl]-1,3-propanediyl ester, polymer with 2-[[[(heptadecafluorooctyl)sulfonyl]propylamino]ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9

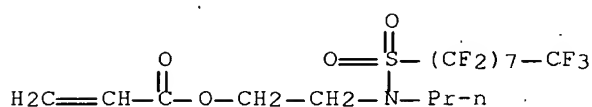
CMF C28 H34 O13



CM 2

CRN 2357-60-0

CMF C16 H14 F17 N O4 S



- IC ICM G02B005-22  
ICS G02B001-11; G02F001-1335; G09F009-00
- CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 73
- IT 13463-67-7, TTO 55N, uses  
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(**fine particles**, high-refractive-index layers; optical filters having antireflective films for plasma display panels)
- IT 7631-86-9, Silica, uses  
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(**fine particles**, low-refractive-index layers; optical filters having antireflective films for plasma display panels)
- IT 57592-66-2P, Pentaerythritol tetraacrylate homopolymer  
67653-78-5P, Dipentaerythritol hexaacrylate homopolymer  
440665-43-0P **440665-44-1P**  
RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(low-refractive-index layers; optical filters having antireflective films for plasma display panels)

L30 ANSWER 11 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:313563 HCAPLUS Full-text

DOCUMENT NUMBER: 132:315826

TITLE: Method for manufacture of electrostatographic toner

INVENTOR(S): Hayashi, Kenji; Kitani, Tomoe; Kamiyama, Mikio

PATENT ASSIGNEE(S): Konica Co., Japan; Konica Minolta Holdings, Inc.

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000131882	A	20000512	JP 1998-303994	19981026
JP 3671701	B2	20050713	JP 1998-303994	19981026

PRIORITY APPLN. INFO.:  
 19981026

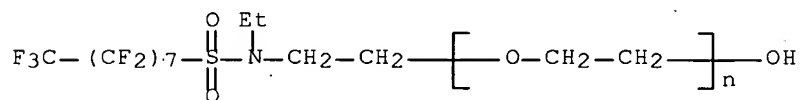
AB The method for the electrostatog. development toner manufacture includes the steps of associating dispersed **fine** polymer **particles** and colorant **fine particles** in an aqueous solution by adding a coagulant and a coagulation stabilizer and heat-fusing the associated particle over the glass transition temperature of the **fine** polymer **particles**, wherein the concentration of the coagulant or the coagulation stabilizer is varied during the heat-fusing step. The method cost-efficiently provides the improved control over the particle size and shape.

IT 29117-08-6, Fluorad FC 170C

RL: TEM (Technical or engineered material use); USES (Uses)  
 (coagulation stabilizer for manufacture of electrostatog. toner)

RN 29117-08-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctyl)sulfonyl]amino]ethyl]- $\omega$ -hydroxy- (CA INDEX NAME)



IC ICM G03G009-087

ICS G03G009-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 29117-08-6, Fluorad FC 170C

RL: TEM (Technical or engineered material use); USES (Uses)  
 (coagulation stabilizer for manufacture of electrostatog. toner)

L30 ANSWER 12 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:43365 HCAPLUS Full-text

DOCUMENT NUMBER: 132:94424

TITLE: Alkali metal salt-supporting polymer  
**fine particles**, their  
 manufacture, sheet-type moldings, and lithium  
 ion secondary batteries therefrom

INVENTOR(S): Kawa, Manabu

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan

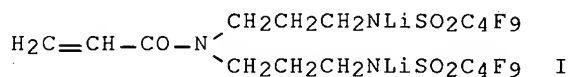
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000017017	A	20000118	JP 1999-114598	19990422
PRIORITY APPLN. INFO.:			JP 1998-120250	A 19980430

GI



AB The polymer **fine particles** with diameter 0.001-1  $\mu\text{m}$  have anionic groups containing Group 13, 15, or 16 elements on the surfaces and are manufactured by emulsion polymerization or micellar polymerization. The polymers may be dendritic. The sheet-type moldings containing the particles have high cation conductivity and are especially suitable for solid electrolytes for Li ion secondary batteries. Thus, 2.0 equiv nonafluorobutylsulfonyl fluoride in  $\text{CH}_2\text{Cl}_2$  was added dropwise in a MeOH solution containing 1.0 equiv 3,3'-diaminodipropylamine and 4.1 equiv  $\text{LiOH}\cdot\text{H}_2\text{O}$ , kept overnight while cooling, condensed, dissolved in THF/water mixture wherein 1.25 equiv  $\text{LiOH}\cdot\text{H}_2\text{O}$  and 1.1 equiv  $\text{CH}_2\text{:CHCOCl}$  were added. The system was left overnight, condensed, and purified by using a reverse phase chromatog. to give a reactive surfactant I. In a reactor containing 0.0116 mol I and ammonium persulfate in water, styrene 1.51, methacrylic acid 0.0832, and divinylbenzene 0.0383 mol were copolymd. to give an emulsion of particles with average diameter 0.5  $\mu\text{m}$ . The emulsion and an aqueous solution containing 63:39 polyethylene oxide and sulfonimide Li salt  $[(\text{C}_2\text{F}_5\text{SO}_2)_2\text{NLi}]$  were mixed at solid weight ratio 50:50. Its film showed ion conductivity 6.3 mS/cm.

IT 254879-21-5P

RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of alkali metal salt-supporting polymer **fine particles** for solid electrolytes for Li ion secondary batteries)

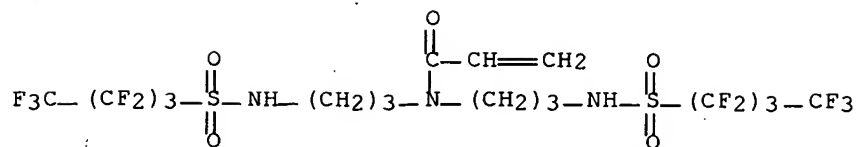
RN 254879-21-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with N,N-bis[3-[[nonafluorobutyl)sulfonyl]amino]propyl]-2-propenamide dilithium salt, diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 254879-20-4

CMF C17 H17 F18 N3 O5 S2 . 2 Li



●2 Li

CM 2

CRN 1321-74-0

CMF C10 H10

CCI IDS

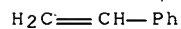


2 [ D1-CH=CH2 ]

CM 3

CRN 100-42-5

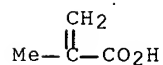
CMF C8 H8



CM 4

CRN 79-41-4

CMF C4 H6 O2



IC ICM C08F008-44

ICS C08J003-12; H01B001-06; H01M010-40

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 37, 52

IT Dendritic polymers

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(alkali metal salts; preparation of alkali metal salt-supporting polymer **fine particles** for solid electrolytes for Li ion secondary batteries)

- IT Polymer electrolytes  
Solid state secondary batteries  
(preparation of alkali metal salt-supporting polymer **fine particles** for solid electrolytes for Li ion secondary batteries)
- IT Polyoxyalkylenes, uses  
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(reaction products with polypropyleneimine dendrimer lithium salt; preparation of alkali metal salt-supporting polymer **fine particles** for solid electrolytes for Li ion secondary batteries)
- IT Polyoxyalkylenes, uses  
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(solid electrolyte component; preparation of alkali metal salt-supporting polymer **fine particles** for solid electrolytes for Li ion secondary batteries)
- IT 241490-46-ODP, Astramol Am 64, reaction products with trifluoromethanesulfonic acid anhydride, lithium salt **254879-21-5P**  
RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of alkali metal salt-supporting polymer **fine particles** for solid electrolytes for Li ion secondary batteries)
- IT 25322-69-4DP, Poly(propylene oxide), reaction products with polypropyleneimine dendrimer lithium salt  
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of alkali metal salt-supporting polymer **fine particles** for solid electrolytes for Li ion secondary batteries)
- IT 56-18-8, 3,3'-Diaminodipropylamine 375-72-4 814-68-6, Acryloyl chloride 1310-65-2, Lithium hydroxide  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reactive surfactant preparation; preparation of alkali metal salt-supporting polymer **fine particles** for solid electrolytes for Li ion secondary batteries)
- IT 254879-20-4P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(reactive surfactant; preparation of alkali metal salt-supporting polymer **fine particles** for solid electrolytes for Li ion secondary batteries)
- IT 25322-68-3 132843-44-8  
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)  
(solid electrolyte component; preparation of alkali metal salt-supporting polymer **fine particles** for solid electrolytes for Li ion secondary batteries)

DOCUMENT NUMBER: 132:42856  
 TITLE: Ink-jet recording sheets and their manufacture  
 INVENTOR(S): Fuchisawa, Tetsuo; Koike, Kazuyuki  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11348416	A	19991221	JP 1998-159735	19980608
PRIORITY APPLN. INFO.:			JP 1998-159735	19980608

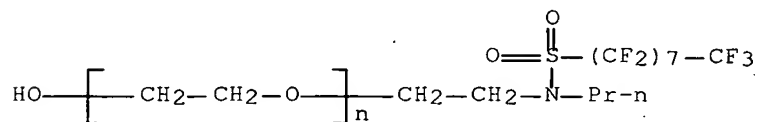
AB The sheet comprises a paper support and a porous transparent layer having 30-500 surface cracks (per 1 mm<sup>2</sup>) of width 5-30 μm and length 30-200 μm. Paper support is coated with a solution containing a water-soluble resin and an inorg. **fine-grain particle**, for formation of a porous transparent layer; heated for drying to make the water content to 30-50%; coated with a gelling agent; and pressed with a mirror roll for a glazed finish. Smooth-surfaced clear images having water resistance are formed.

IT **52550-45-5**, F 144D

RL: MOA (Modifier or additive use); USES (Uses)  
 (F 144D, surfactant in gelling agent for porous transparent layer formation; manufacture of ink-jet recording sheets having porous transparent layers by mirror rolling for glazed finish)

RN 52550-45-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctyl)sulfonyl]propylamino]ethyl]-ω-hydroxy- (CA INDEX NAME)



IC ICM B41M005-00

ICS B41J002-01; D21H019-12

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **52550-45-5**, F 144D

RL: MOA (Modifier or additive use); USES (Uses)  
 (F 144D, surfactant in gelling agent for porous transparent layer formation; manufacture of ink-jet recording sheets having porous transparent layers by mirror rolling for glazed finish)

L30 ANSWER 14 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:325777 HCAPLUS Full-text

DOCUMENT NUMBER: 130:357167

TITLE: Emulsions for aerosolization and drug delivery  
 INVENTOR(S): Lai, Johnny; Kessler, Dean R.; Quay, Steven C.  
 PATENT ASSIGNEE(S): Sonus Pharmaceuticals, Inc., USA  
 SOURCE: PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9924016	A1	19990520	WO 1998-US23900	199811 09
W:				
AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,				
DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP,				
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,				
MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,				
TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW:				
GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,				
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,				
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9913148	A	19990531	AU 1999-13148	199811 09
PRIORITY APPLN. INFO.:			US 1997-65003P	P 199711 10
			WO 1998-US23900	W 199811 09

AB Compns. containing drug solns. and fluorocarbons are disclosed for pulmonary delivery of the drug or therapeutic agent. Suitable fluorocarbons have relatively high vapor pressures or corresponding low b.ps., preferably between about -30° to about 150°, and include dodecafluoropentane, dodecafluoroneopentane, perfluorocyclopentane, perfluoro-2-Me pentane, perfluorohexane, perfluoroheptane, perfluorooctane, perfluorodecalin and isomers and mixts. Aerosolized emulsions of these fluorocarbons produce **fine aerosol particles** of 5 µm and can also provide for improved solubility of the drug or therapeutic agent. The fluorocarbons also have high enough vapor pressures, and are used in small enough amts., to effectively deliver the drug or therapeutic agent to the lung and then to leave the air spaces of the lungs via evaporation. Water containing a dissolved, therapeutic agent (i.e., insulin) was emulsified by mixing and sonication in perfluorohexane to contain 15 approx. 0.5% water by weight. The surfactant used was a fluorosurfactant, PEG Telomer B at a concentration of 0.13% by weight. The dispersion was then aerosolized and administered via inhalation to the subject for pulmonary delivery of the therapeutic agent.

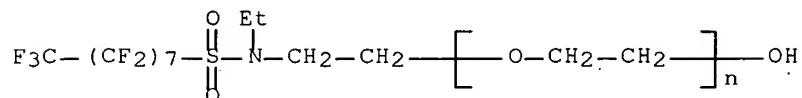
IT 29117-08-6, FC-170C 68958-61-2, FC-171  
 RL: PEP (Physical, engineering or chemical process); THU  
 (Therapeutic use); BIOL (Biological study); PROC (Process); USES  
 (Uses)

(emulsions for aerosolization and drug delivery)

RN 29117-08-6 HCAPLUS

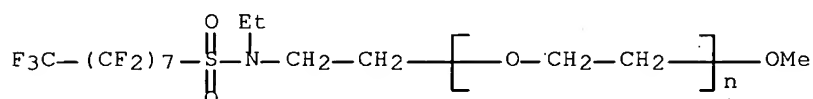
CN Poly(oxy-1,2-ethanediyl), α-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6

,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]ethyl]- $\omega$ -hydroxy- (CA INDEX NAME)



RN 68958-61-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]ethyl]- $\omega$ -methoxy- (CA INDEX NAME)



IC ICM A61K009-00

CC 63-6 (Pharmaceuticals)

IT 306-94-5, Perfluorodecalin 307-30-2, 1H,1H-Perfluoro-1-octanol  
307-34-6, Perfluorooctane 335-57-9, Perfluoroheptane 355-04-4,  
Perfluoro-2-methylpentane 355-42-0, Perfluorohexane 374-51-6,  
Dodecafluoroneopentane 375-82-6, 1H,1H-Perfluoro-1-heptanol  
376-77-2, Perfluorocyclopentane 678-26-2, Dodecafluoropentane  
**29117-08-6, FC-170C 68958-61-2, FC-171**

RL: PEP (Physical, engineering or chemical process); THU  
(Therapeutic use); BIOL (Biological study); PROC (Process); USES  
(Uses)

(emulsions for aerosolization and drug delivery)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN  
THE RE FORMAT

L30 ANSWER 15 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:294948 HCAPLUS Full-text

DOCUMENT NUMBER: 122:174365

TITLE: Electrophotographic magnetic carrier coated with  
fluoroalkylpolyethylene and its manufacture  
INVENTOR(S): Matsukuri, Kinji; Watanabe, Hideki; Ideguchi,  
Shigeki; Hosoda, Atsushi; Hashimoto, Yutaka;  
Takano, Satoshi

PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 06295103

A

19941021

JP 1993-83241

199304

09

PRIORITY APPLN. INFO.:

JP 1993-83241

199304

09

AB In the carrier comprising ferromagnetic **fine particles** and a resin, the resin consists of a core material which is a polyurethane-polyurea with composite crosslinked structure and a coating material which is a copolymer from an unsatd. monomer with  $\geq 2$  fluorinated alkyl groups. The carrier is manufactured by (1) suspension-dispersing ferroelec. **fine particles** and a mixture of a polyol with sulfonic acid (salt) group and/or carboxylic acid (salt) group and a polyisocyanate into a polyamine-containing water, followed by polymerizing to obtain the core material and (2) coating the surface of the core material with a polymer from an un saturated monomer with  $\geq 2$  fluorinated alkyl groups. In the manufacture,  $\geq 50\%$  alkali metal cations on the surface of the core material may be ion-exchanged to H, divalent metal cations (no monovalent), and/or organic cations before coating with the fluorinated alkyl copolymer. The carrier showed good charging property and durability.

IT 155329-74-1P 155329-77-4P 155329-79-6P

155329-80-9P 155329-81-0P 161034-76-0P

161034-80-6P 161034-81-7P 161034-83-9P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(coating material; electrophotog. magnetic carrier coated with fluoroalkylpolyethylene)

RN 155329-74-1 HCAPLUS

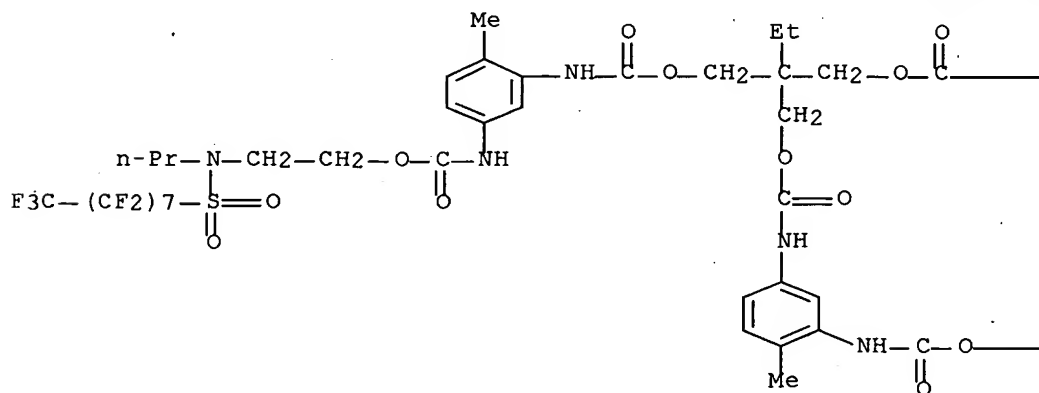
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
2-[[[[[5-[[[2-[[[[[5-[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]carbonyl]amino]-2-methylphenyl]amino]carbonyl]oxy]methyl]-2-[[[[[5-[[[2-[[[(heptadecafluorooctyl)sulfonyl]propylamino]ethoxy]carbonyl]amino]-2-methylphenyl]amino]carbonyl]oxy]methyl]butoxy]carbonyl]amino]-2-methylphenyl]amino]carbonyl]oxy]ethyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

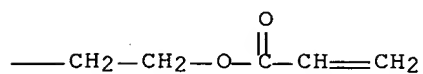
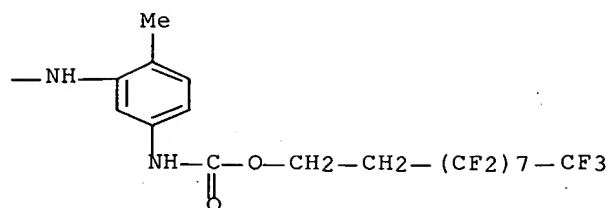
CRN 155329-72-9

CMF C61 H57 F34 N7 O16 S

PAGE 1-A



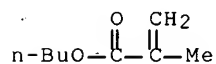
PAGE 1-B



CM 2

CRN 97-88-1

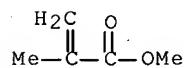
CMF C8 H14 O2



CM 3

CRN 80-62-6

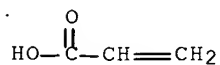
CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



RN 155329-77-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
 2-[[[[[5-[[[2-[[[[[5-[[[[[3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-

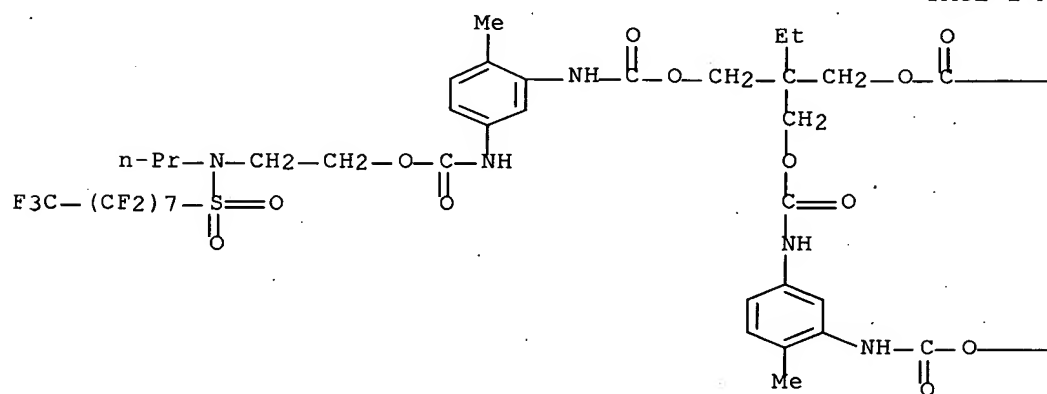
heptadecafluorodecyl)oxy]carbonyl]amino]-2-  
 methylphenyl]amino]carbonyl]oxy)methyl]-2-[[[[[5-[[[2-  
 [(heptadecafluorooctyl)sulfonyl]propylamino]ethoxy]carbonyl]amino]-  
 2-methylphenyl]amino]carbonyl]oxy)methyl]butoxy]carbonyl]amino]-2-  
 methylphenyl]amino]carbonyl]oxy]ethyl 2-propenoate, methyl  
 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl  
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

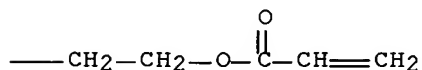
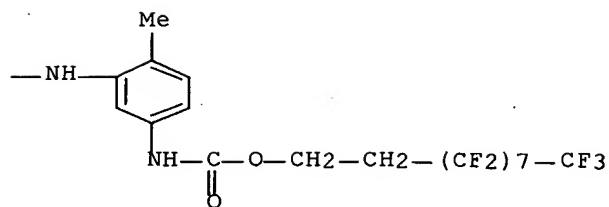
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CMF C61 H57 F34 N7 O16 S

PAGE 1-A



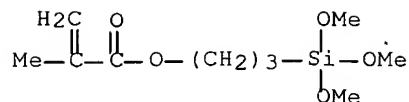
PAGE 1-B



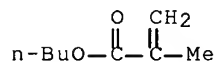
CM 2

CRN 2530-85-0

CMF C10 H20 O5 Si



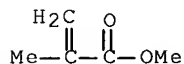
CRN 97-88-1

CMF C8 H14 O2

CM · 4

CRN 80-62-6

CMF C5 H8 O2



RN 155329-79-6 HCAPLUS

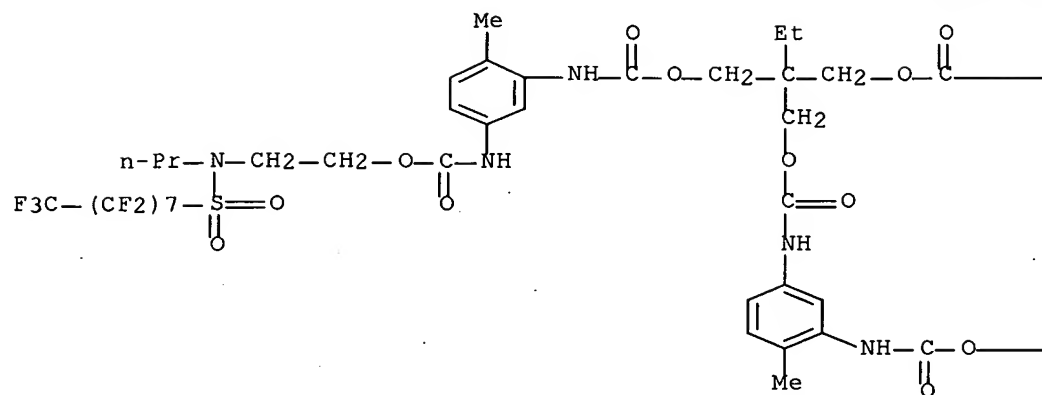
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
2-[[[[[5-[[[2-[[[[[5-[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-  
heptadecafluorodecyl)oxy]carbonyl]amino]-2-  
methylphenyl]amino]carbonyl]oxy]methyl]-2-[[[[[5-[[[2-  
[[[(heptadecafluorooctyl)sulfonyl]propylamino]ethoxy]carbonyl]amino]-  
2-methylphenyl]amino]carbonyl]oxy]methyl]butoxy]carbonyl]amino]-2-  
methylphenyl]amino]carbonyl]oxy]ethyl 2-propenoate and methyl  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

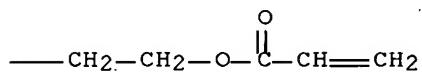
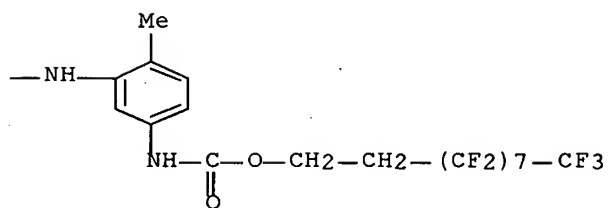
CRN 155329-72-9

CMF C61 H57 F34 N7 O16 S

PAGE 1-A



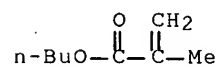
PAGE 1-B



CM 2

CRN 97-88-1

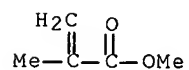
CMF C8 H14 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



RN 155329-80-9 HCAPLUS

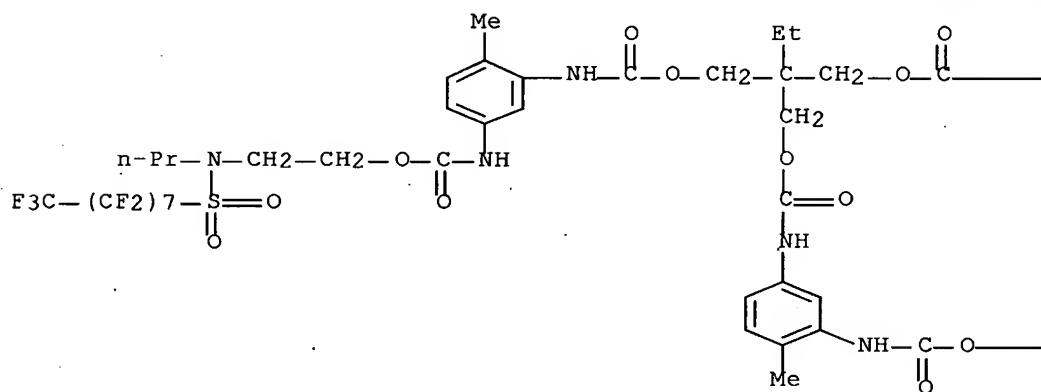
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl  
 2-propenoate, 2-[[[[[5-[[[2-[[[[[5-[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10  
 ,10,10-heptafluorodecyl)oxy]carbonyl]amino]-2-  
 methylphenyl]amino]carbonyl]oxy]methyl]-2-[[[[[5-[[[2-  
 [[(heptafluorooctyl)sulfonyl]propylamino]ethoxy]carbonyl]amino]-  
 2-methylphenyl]amino]carbonyl]oxy]methyl]butoxy]carbonyl]amino]-2-  
 methylphenyl]amino]carbonyl]oxy]ethyl 2-propenoate and 2-propenoic  
 acid (9CI) (CA INDEX NAME)

CM 1

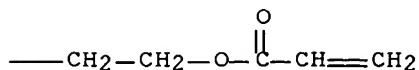
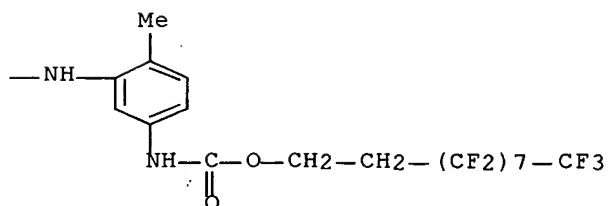
CRN 155329-72-9

CMF C61 H57 F34 N7 O16 S

PAGE 1-A



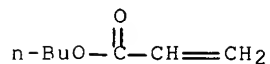
PAGE 1-B



CM 2

CRN 141-32-2

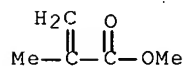
CMF C7 H12 O2



CM 3

CRN 80-62-6

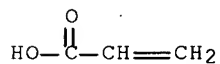
CMF C5 H8 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



RN 155329-81-0 HCAPLUS

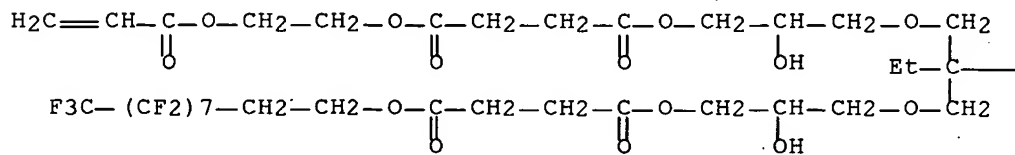
CN 5,9,13,17-Tetraoxaheneicosanedioic acid, 11-ethyl-11-[[3-[4-  
[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)oxy]-1,4-  
dioxobutoxy]-2-hydroxypropoxy)methyl]-7,15-dihydroxy-4,18-dioxo-,  
2-[[[(heptafluorooctyl)sulfonyl]propylamino]ethyl  
2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer with butyl  
2-propenoate, ethenylbenzene and methyl 2-methyl-2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

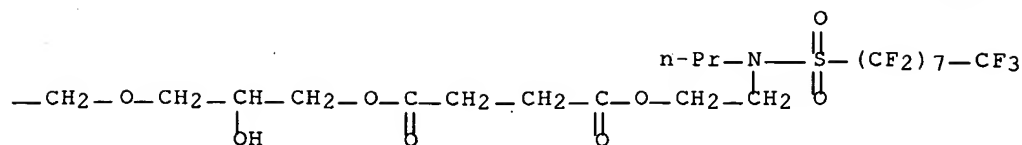
CRN 111024-47-6

CMF C55 H63 F34 N O22 S

PAGE 1-A



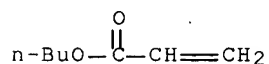
PAGE 1-B



CM 2

CRN 141-32-2

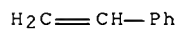
CMF C7 H12 O2



CM 3

CRN 100-42-5

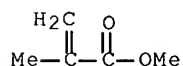
CMF C8 H8



CM 4

CRN 80-62-6

CMF C5 H8 O2



RN 161034-76-0 HCAPLUS

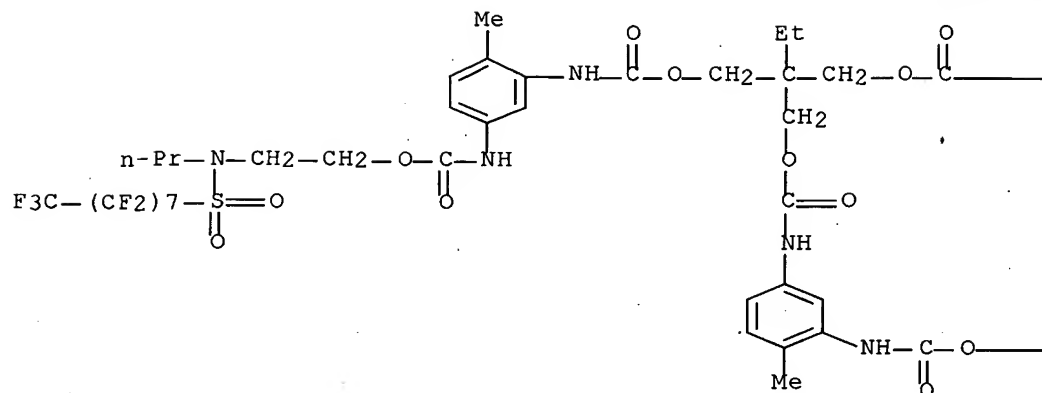
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
 2-[[[3-[[[2-ethyl-4-[[5-[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy]carbonyl]amino]-2-methylphenyl]amino]-2-[2-[[5-[[[2-[(heptadecafluorooctyl)sulfonyl]propylamino]ethoxy]carbonyl]amino]-2-methylphenyl]amino]-2-oxoethyl]-4-oxobutoxy]carbonyl]amino]-4-methylphenyl]amino]carbonyl]oxy]ethyl 2-propenoate, 2-hydroxyethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

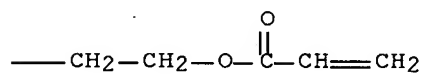
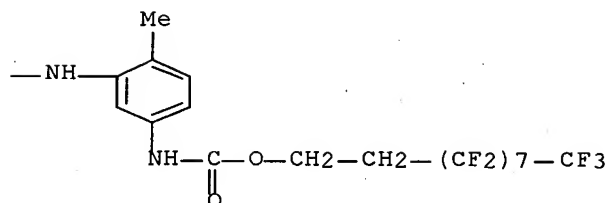
CRN 155329-72-9

CMF C61 H57 F34 N7 O16 S

PAGE 1-A



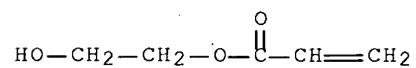
PAGE 1-B



CM 2

CRN 818-61-1

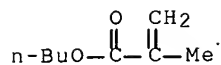
CMF C5 H8 O3



CM 3

CRN 97-88-1

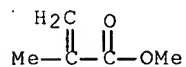
CMF C8 H14 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



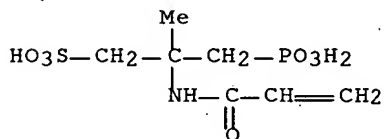
RN 161034-80-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
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CRN 161034-79-3

CMF C7 H14 N O7 P S

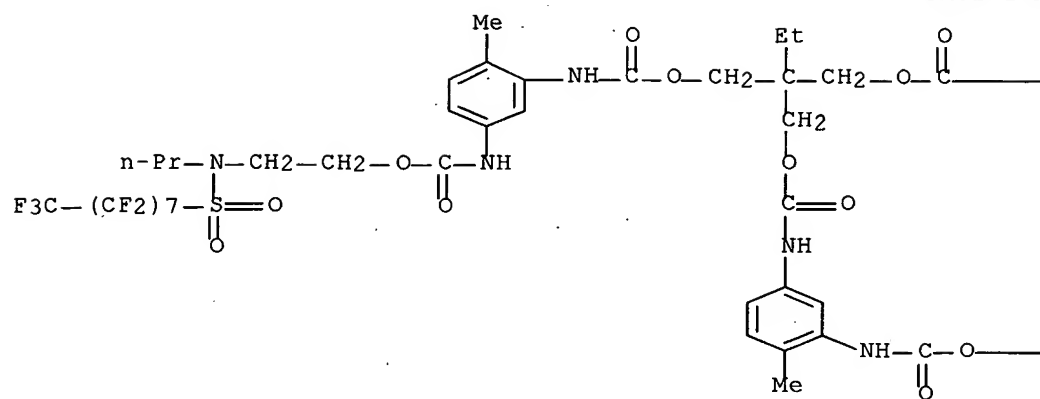


CM 2

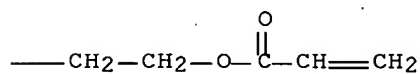
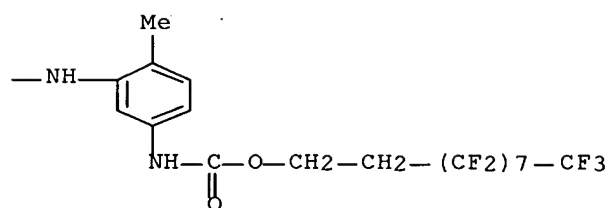
CRN 155329-72-9

CMF C61 H57 F34 N7 O16 S

PAGE 1-A



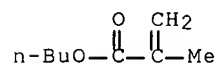
PAGE 1-B



CM 3

CRN 97-88-1

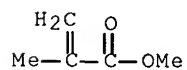
CMF C8 H14 O2



CM 4

CRN 80-62-6

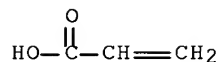
CMF C5 H8 O2



CM 5

CRN 79-10-7

CMF C3 H4 O2



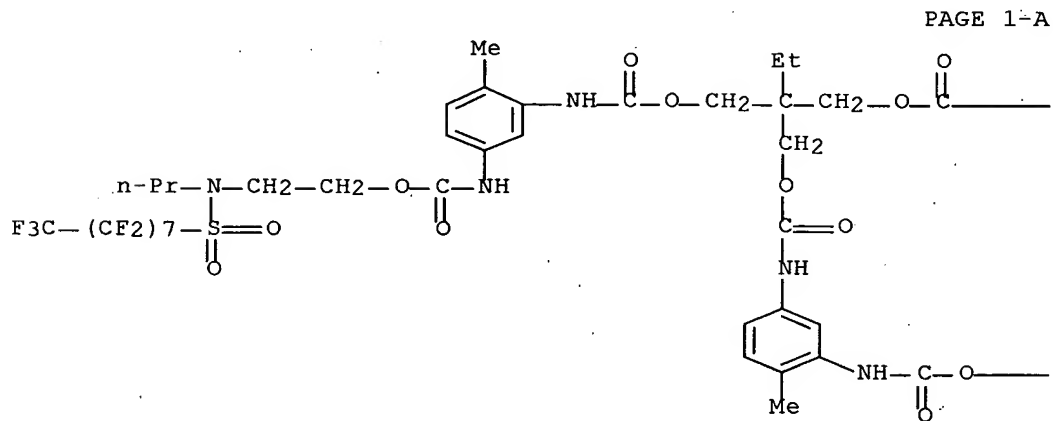
RN 161034-81-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
 2-[[[[[3-[[[2-[2-[[5-[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-  
 heptadecafluorodecyl)oxy]carbonyl]amino]-2-methylphenyl]amino]-2-  
 oxoethyl]-2-[2-[[5-[[[2-[[[heptadecafluorooctyl)sulfonyl]propylamino  
 ]ethoxy]carbonyl]amino]-2-methylphenyl]amino]-2-  
 oxoethyl]butoxy]carbonyl]amino]-4-methylphenyl]amino]carbonyl]oxy]et  
 hyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-  
 (phosphonooxy)ethyl 2-propenoate and 2-propenoic acid (9CI) (CA  
 INDEX NAME)

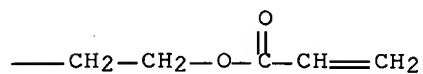
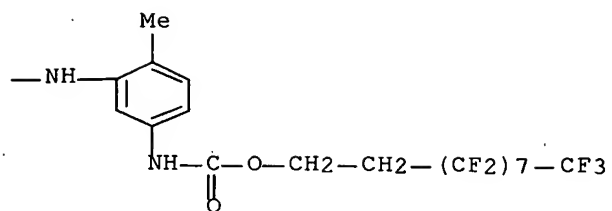
CM 1

CRN 155329-72-9

CMF C61 H57 F34 N7 O16 S



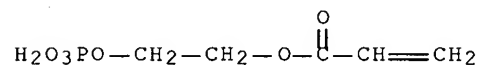
PAGE 1-B



CM 2

CRN 32120-16-4

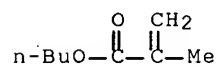
CMF C5 H9 O6 P



CM 3

CRN 97-88-1

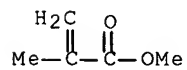
CMF C8 H14 O2



CM 4

CRN 80-62-6

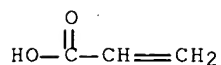
CMF C5 H8 O2



CM 5

CRN 79-10-7

CMF C3 H4 O2



RN 161034-83-9 HCAPLUS

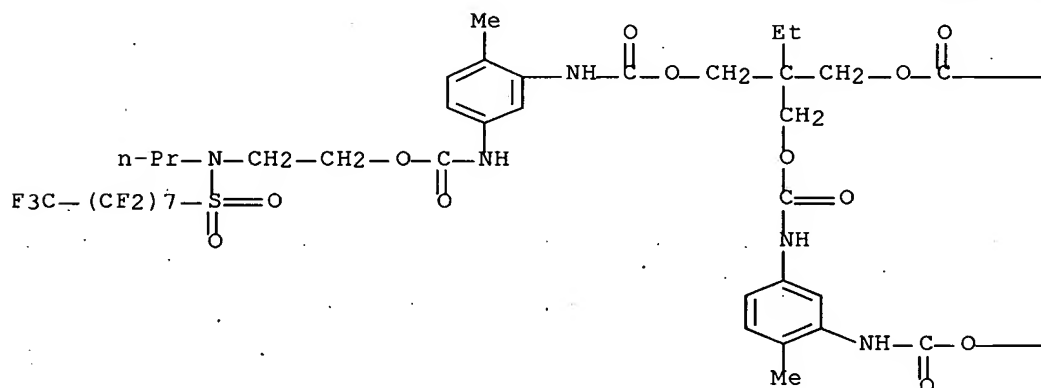
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with  
 $\alpha$ -[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]-  
 $\omega$ -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)],  
 2-[[[[[3-[[[2-[2-[[5-[[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-  
 heptafluorodecyl)oxy]carbonyl]amino]-2-methylphenyl]amino]-2-  
 oxoethyl]-2-[2-[[5-[[[2-[(heptafluorooctyl)sulfonyl]propylamino  
 ]ethoxy]carbonyl]amino]-2-methylphenyl]amino]-2-  
 oxoethyl]butoxy]carbonyl]amino]-4-methylphenyl]amino]carbonyl]oxy]et  
 hyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-  
 (phosphonoxy)ethyl 2-propenoate and 2-propenoic acid (9CI) (CA  
 INDEX NAME)

CM 1

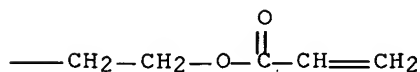
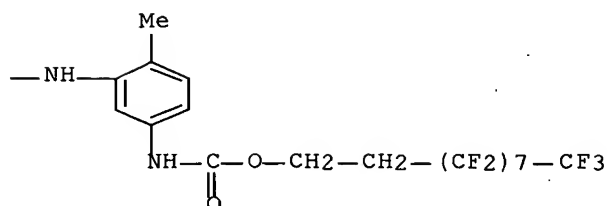
CRN 155329-72-9

CMF C61 H57 F34 N7 O16 S

PAGE 1-A



PAGE 1-B

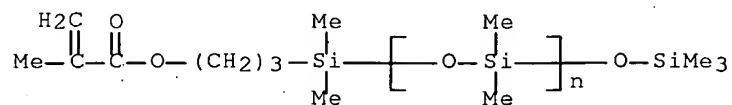


CM 2

CRN 123109-42-2

CMF (C2 H6 O Si)<sub>n</sub> C12 H26 O3 Si2

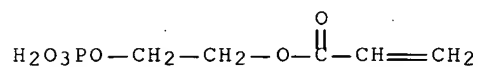
CCI PMS



CM 3

CRN 32120-16-4

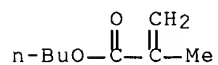
CMF C5 H9 O6 P



CM 4

CRN 97-88-1

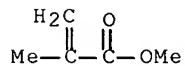
CMF C8 H14 O2



CM 5

CRN 80-62-6

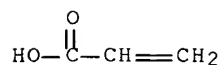
CMF C5 H8 O2



CM 6

CRN 79-10-7

CMF C3 H4 O2



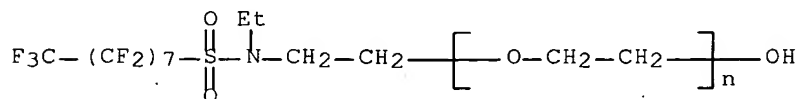
IC ICM G03G009-107  
ICS G03G009-113  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38  
IT 80-62-6DP, copolymer with fumaric fluoroalkylate and Bu methacrylate  
97-88-1DP, Butyl methacrylate, copolymer with fumaric fluoroalkylate and Bu methacrylate 110-17-8DP, 2-Butenedioic acid (E)-, monofluoroalkylate, copolymer with Me methacrylate and Bu methacrylate 146054-93-5P 155329-68-3P 155329-69-4P  
155329-71-8P **155329-74-1P 155329-77-4P**  
**155329-79-6P 155329-80-9P 155329-81-0P**  
**161034-76-0P 161034-80-6P 161034-81-7P**  
**161034-83-9P** 161034-86-2P  
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
(coating material; electrophotog. magnetic carrier coated with fluoroalkylpolyethylene)

L30 ANSWER 16 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1995:212389 HCAPLUS Full-text  
DOCUMENT NUMBER: 122:268327  
TITLE: Jet-printing ink compositions for transfer printing  
INVENTOR(S): Hosono, Yoshe; Yamazaki, Hideo; Tsukahara, Michi  
PATENT ASSIGNEE(S): Seiko Epson Corp, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	
JP 06220376	A	19940809	JP 1993-9510	199301 22
PRIORITY APPLN. INFO.:			JP 1993-9510	199301 22

AB Inks, useful for jet-printing based on at least a heating process, contain water, colorants, resins dissolved and/or dispersed in water, surfactants, and oil-in-water emulsions. Thus, ion-exchanged water 75.9, MA 100 3, resin **fine particles** 8, poly(vinylpyrrolidone) 3, LE 45 (silicone oil emulsion) 3, FC 170C (fluoro surfactant) 2, dipropylene glycol 5, and EDTA 0.1 part were stirred and filtered to give an ink, which when used to thermal transfer jet printing showed high transfer efficiency at wide pressure range.  
IT **29117-08-6, FC 170C**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(transfer jet-printing inks with high transfer efficiency at wide pressure range)

RN 29117-08-6 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctyl)sulfonyl]amino]ethyl]- $\omega$ -hydroxy- (CA INDEX NAME)



IC ICM C09D011-00  
 ICS C09D011-10  
 CC 42-12 (Coatings, Inks, and Related Products)  
 IT 9003-39-8, Polyvinylpyrrolidone 29117-08-6, FC 170C  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (transfer jet-printing inks with high transfer efficiency at wide pressure range)

L30 ANSWER 17 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1994:446656 HCAPLUS Full-text  
 DOCUMENT NUMBER: 121:46656  
 TITLE: Lithographic plate material for thermographic platemaking  
 INVENTOR(S): Nakajima, Tsutomu; Momiyama, Ritsuko  
 PATENT ASSIGNEE(S): Ricoh Kk, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05246133	A	19930924	JP 1992-84564	19920306
JP 3219299	B2	20011015	JP 1992-84564	19920306

PRIORITY APPLN. INFO.:  
 19920306

AB In a recording material whose recording layer material shows a decrease in recessing contact angle upon heating in the presence of a liquid, the recording layer is provided with projections and is based on a compound having F-containing side chains, the material is a blend of polymers  $\geq 1$  of which contains F-containing side chains, or the recording layer consists of **fine particles** of the above recording material deposited on an elastic sheet. The F-containing compound is a homo- or copolymer of  $\text{CH}_2:\text{CR}_1\text{CO}_2\text{R}_2$  [ $\text{R}_1 = \text{H}, \text{Me}$ ;  $\text{R}_2 = \text{F-containing group}$ ],  $\text{CH}_2:\text{CR}_1\text{OCOR}_2$  [ $\text{R}_1 = \text{same as above}$ ;  $\text{R}_2 = \text{F-containing group}$ ],  $\text{CH}_2:\text{CR}_1\text{C}(\text{O})\text{R}_2$  [ $\text{R}_1 = \text{same as above}$ ;  $\text{R}_2 = \text{F-containing group}$ ],  $\text{CH}_2:\text{CR}_1\text{OR}_2$  [ $\text{R}_1 = \text{same as above}$ ;  $\text{R}_2 = \text{F-containing group}$ ], or  $\text{CH}_2:\text{CR}_1\text{CONHR}_2$  [ $\text{R}_1 = \text{same as above}$ ;  $\text{R}_2 = \text{F-containing group}$ ]. The material provides high d. prints.

IT 153973-31-0P

RL: PREP (Preparation)

(preparation of, thermog. lithog. plate material from)

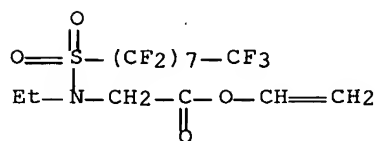
RN 153973-31-0 HCAPLUS

CN Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, ethenyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 678-36-4

CMF C14 H10 F17 N O4 S



IC ICM B41M005-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 25639-21-8P, Stearyl methacrylate homopolymer 26338-99-8P  
 30660-58-3P 31074-80-3P 74049-08-4P 88233-95-8P 88992-72-7P  
 90718-04-0P 93705-98-7P 104242-01-5P 105134-96-1P  
 110453-15-1P 118036-79-6P **153973-31-0P** 156169-38-9P  
 156169-39-0P 156169-40-3P

RL: PREP (Preparation)

(preparation of, thermog. lithog. plate material from)

L30 ANSWER 18 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:446534 HCAPLUS Full-text

DOCUMENT NUMBER: 121:46534

TITLE: Electrophotographic plate for electrophotographic lithographic plates

INVENTOR(S): Kato, Eiichi; Kasai, Seishi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: PCT Int. Appl., 213 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9215048	A1	19920903	WO 1992-JP188	19920221
W: US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
JP 04268564	A	19920924	JP 1991-78711	19910222
JP 04291265	A	19921015	JP 1991-78175	19910319
JP 04304462	A	19921027	JP 1991-94886	

				199104 02
JP 04355457	A	19921209	JP 1991-156246	
				199105 31
EP 535236	A1	19930407	EP 1992-905099	
				199202 21
EP 535236	B1	19961218		
R: DE, GB				
US 5342716	A	19940830	US 1992-946320	
				199210 22
PRIORITY APPLN. INFO.:			JP 1991-78711	A
				199102 22
			JP 1991-78175	A
				199103 19
			JP 1991-94886	A
				199104 02
			JP 1991-156246	A
				199105 31
			WO 1992-JP188	W
				199202 21

AB The title electrophotog. plate utilizing a photoconductor layer containing photoconductive ZnO, a spectral sensitizer dye, and a binder resin, the binder resin contains  $\geq 1$  resins (A) (weight average mol. weight 1 + 103-2 + 104) containing polymer component [CHala2(CO2R3)] [a1, a2 = H, halo, CN, hydrocarbon moiety; R3 = hydrocarbon moiety]  $\geq 30\%$  and a polymer component containing  $\geq 1$  polar groups selected from PO3H2, SO3H, CO2H, P(O)(OH)R1 (R1 = hydrocarbon or oxyhydrocarbon moiety), and a cyclic acid anhydride moiety 0.5-15%. In addition, the photoconductor layer contains nonaq. medium dispersed resin **fine particles** (L) having particle size less than that of the maximum diameter of the photoconductive ZnO particles utilized above. L is obtained by copolyng. a monofunctional monomer possessing  $\geq 1$  functional groups capable of decomposing to form CO2H with another monofunctional monomer(s) in the precursor of a nonaq. solvent-soluble dispersion-stabilizing resin with structure repeating units containing F- and/or Si-containing substituents. The electrophotog. plate gives lithog. printing plates giving superior printed copies even under severe ambient conditions and having good durability.

IT 149072-50-4 149093-51-6

RL: USES (Uses)

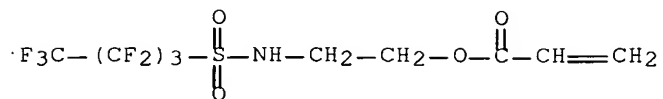
(latex particles, for electrophotog. lithog. plates)

RN 149072-50-4 HCAPLUS

CN 2-Propenoic acid, 1,2-ethanediyl ester, polymer with  
1-[(2-methyl-1-oxo-2-propenyl)oxy]-2,5-pyrrolidinedione and  
2-[[[(nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, graft (9CI)  
(CA INDEX NAME)

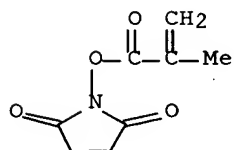
CM 1

CRN 146615-77-2  
 GMF C9 H8 F9 N O4 S



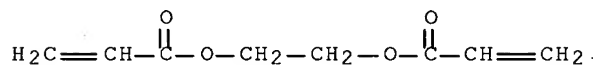
CM 2

CRN 38862-25-8  
 CMF C8 H9 N O4



CM 3

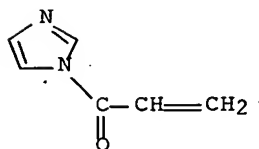
CRN 2274-11-5  
 CMF C8 H10 O4



RN 149093-51-6 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with butyl 2-propenoate, N-[(heptadecafluorooctyl)sulfonyl]-N-methyl-2-propenamide, 1-(1-oxo-2-propenyl)-1H-imidazole and oxiranylmethyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

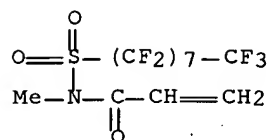
CRN 40736-25-2  
 CMF C6 H6 N2 O



CM 2

CRN 865-93-0

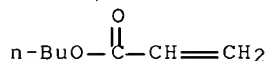
CMF C12 H6 F17 N O3 S



CM 3

CRN 141-32-2

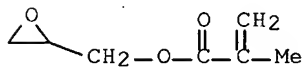
CMF C7 H12 O2



CM 4

CRN 106-91-2

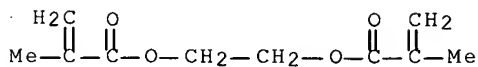
CMF C7 H10 O3



CM 5

CRN 97-90-5

CMF C10 H14 O4



IT 145807-55-2P

RL: PREP (Preparation); USES (Uses)

(preparation of, as dispersion stabilizing resin)

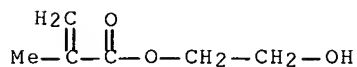
RN 145807-55-2 HCAPLUS

CN 2-Propenoic acid, 2-[[[(nonafluorobutyl)sulfonyl]amino]ethyl ester,  
telomer with 3-mercaptopropanoic acid, 2-[(2-methyl-1-oxo-2-  
propenyl)oxy]ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

CMF C6 H10 O3



CM 2

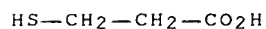
CRN 163032-14-2

CMF (C9 H8 F9 N O4 S)x . C3 H6 O2 S

CM 3

CRN 107-96-0

CMF C3 H6 O2 S



CM 4

CRN 163032-13-1

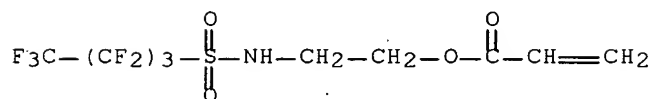
CMF (C9 H8 F9 N O4 S)x

CCI PMS

CM 5

CRN 146615-77-2

CMF C9 H8 F9 N O4 S



IC ICM G03G005-05

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35

IT	149072-29-7	149072-31-1	149072-33-3	149072-34-4	149072-35-5
	149072-36-6	149072-38-8	149072-39-9	149072-40-2	149072-41-3
	149072-42-4	149072-43-5	149072-44-6	149072-45-7	149072-46-8
	149072-47-9	149072-48-0	149072-49-1	<b>149072-50-4</b>	
	149072-51-5	149072-52-6	149072-53-7	149072-55-9	149072-56-0
	149072-57-1	149072-58-2	149072-59-3	149072-61-7	149072-62-8
	149072-63-9	149072-98-0	149072-99-1	149093-43-6	149093-44-7

149093-45-8 149093-46-9 149093-47-0 149093-48-1 149093-50-5  
**149093-51-6** 149093-53-8 149093-58-3 149124-86-7  
 149333-75-5 150497-83-9 150497-84-0 150497-86-2 150497-88-4  
 150497-96-4

RL: USES (Uses)

(latex particles, for electrophotog. lithog. plates)

IT 145168-75-8P 145168-89-4P 145168-94-1P 145169-02-4P  
 145169-03-5P 145169-04-6P 145807-40-5P 145807-41-6P  
 145807-53-0P 145807-54-1P **145807-55-2P** 145807-56-3P  
 145807-57-4P 145807-62-1P 145807-66-5P 145807-71-2P  
 145807-72-3P 149072-22-0DP, reaction product with  
 2-isocyanatoethyl methacrylate 149072-24-2P 149072-26-4P  
 149072-28-6P 149093-90-3P 149368-85-4P 149434-04-8P  
 149434-06-0P 149434-15-1P 149434-21-9P 149434-22-0P  
 149658-55-9P 150497-82-8P 150497-92-0P

RL: PREP (Preparation); USES (Uses)

(preparation of, as dispersion stabilizing resin)

L30 ANSWER 19 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:668987 HCAPLUS Full-text

DOCUMENT NUMBER: 115:268987

TITLE: Ferrofluid compositions and manufacture thereof  
 and ferrofluid sealing

INVENTOR(S): Yokochi, Atsushi; Yabe, Shunichi

PATENT ASSIGNEE(S): Nippon Seiko K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 03139596	A	19910613	JP 1989-277993	198910 25
JP 2580344	B2	19970212		
US 5124060	A	19920623	US 1990-602701	199010 24
PRIORITY APPLN. INFO.:			JP 1989-277993	A 198910 25

AB The composition consists of a low-volatility organic solvent, a dispersant with lipophilic radicals having affinity to the solvent, ferromagnetic **fine particles** coated with the dispersant and dispersed in the solvent, and a fluoro-surfactant containing organophilic and organophobic portions in its mol. structure. The surfactant may be nonionic, and a fluoroalkyl ester, a fluoroalkylethylene oxide addition compound, a perfluoroalkylamine oxide addition compound, or an oligomer having a perfluoroacrylate or a urethane structure. The ferrofluid has low wettability on metals, a long sealing life, and good blockage of oil mist.

IT **52550-45-5**, F 142D

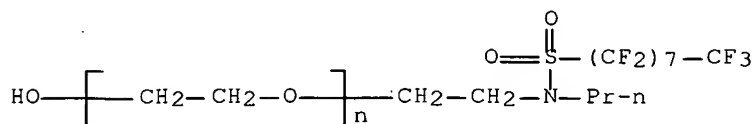
RL: PRP (Properties)

(ferrofluid containing)

RN 52550-45-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[2-[[ (1,1,2,2,3,3,4,4,5,5,6,6,7,7,

8,8,8-heptafluorooctyl)sulfonyl]propylamino]ethyl]- $\omega$ -hydroxy- (CA INDEX NAME)



IC ICM C10M131-10  
ICS C09K003-10; C10M131-12; C10M133-18; C10M133-30; F16J015-40;  
H01F001-28  
ICI C10N030-04, C10N040-14, C10N040-34, C10N070-00  
CC 77-8 (Magnetic Phenomena)  
IT 11114-17-3, FC 430 **52550-45-5**, F 142D 69458-65-7,  
Megafac F 183 70829-87-7, Ftergent 82030-84-0, Surflon S-141  
91105-71-4, Surflon S-382 96353-69-4, DS 401 110069-68-6,  
Unidyne DS 451 137398-76-6, Unidyne DS 406  
RL: PRP (Properties)  
(ferrofluid containing)

L30 ANSWER 20 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1991:33129 HCAPLUS Full-text  
DOCUMENT NUMBER: 114:33129  
TITLE: Carriers for electrostatic image development  
INVENTOR(S): Taya, Masaaki  
PATENT ASSIGNEE(S): Canon K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 02157854	A	19900618	JP 1988-312055	198812 12

PRIORITY APPLN. INFO.: JP 1988-312055

198812  
12

AB The carriers comprise a core with average particle size 10-49  $\mu\text{m}$  prepared by dispersing magnetic **fine particles** in an acrylic copolymer binder resin, and a fluoroalkyl acrylate copolymer coating layer. The carriers used for magnetic brush development show good charging properties and durability. Thus, a mixture of 2-ethylhexyl acrylate-Me methacrylate-styrene copolymer, and Fe oxide powder, and N-perfluorohexylsulfonyl-N-ethylaminoethyl methacrylate-Me methacrylate copolymer was kneaded, pulverized, and heat-treated to give spherical carrier particles. The carrier was mixed with a toner to give a developer.

IT **131307-08-9**, Methyl methacrylate-N-perfluorohexylsulfonyl-N-ethylaminoethyl methacrylate copolymer

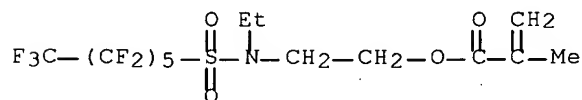
RL: USES (Uses)

(electrophotog. developer carrier coating layer using)

RN 131307-08-9 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-[ethyl[(tridecafluorohexyl)sulfonyl]amino]ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI)  
 (CA INDEX NAME)

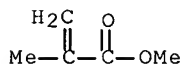
CM 1

CRN 67906-70-1  
 CMF C14 H14 F13 N O4 S



CM 2

CRN 80-62-6  
 CMF C5 H8 O2



IC ICM G03G009-113  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT **131307-08-9**, Methyl methacrylate-N-perfluorohexylsulfonyl-N-ethylaminoethyl methacrylate copolymer  
 RL: USES (Uses)  
 (electrophotog. developer carrier coating layer using)

L30 ANSWER 21 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1990:189092 HCAPLUS Full-text  
 DOCUMENT NUMBER: 112:189092  
 TITLE: Ink-jet recording medium  
 INVENTOR(S): Takimoto, Hiroshi; Yoneyama, Tomio; Sano, Hideo; Masuda, Minoru  
 PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan  
 SOURCE: Eur. Pat. Appl., 10 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 339604	A2	19891102	EP 1989-107547	198904
				26
EP 339604	A3	19910116		

EP 339604	B1	19940713		
R: DE, FR, GB				
US 5102731	A	19920407	US 1989-342875	198904 25
JP 02223465	A	19900905	JP 1989-108386	198904 27
PRIORITY APPLN. INFO.:			JP 1988-105090	A 198804 27
			JP 1988-249568	A 198810 03
			JP 1988-284861	A 198811 11

AB An ink-jet recording medium is described which has excellent ink-absorbing properties, color developing properties, adhesion, and smoothness. The medium comprises a nonporous substrate and a coating layer comprising a carboxy group-containing ionomer-type hydrophilic urethane resin and organic and/or inorg. **fine particles**. The images recorded on the medium are especially useful for projection. Thus, a coating layer comprised a polyester ionomer-type hydrophilic urethane resin (Hydran HW-310) and urea-HCHO resin particles was used for ink-jet recording.

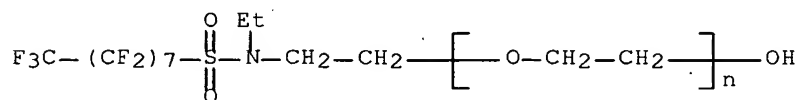
IT **29117-08-6**, Fluorad FC-170C

RL: USES (Uses)

(ink-jet recording media containing)

RN 29117-08-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctyl)sulfonyl]amino]ethyl]- $\omega$ -hydroxy- (CA INDEX NAME)



IC ICM B41M001-30

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Printing, nonimpact

(ink-jet, receptors, coatings containing carboxy group-containing ionomer-type hydrophilic urethane resin and inorg. or organic **fine particles** for)

IT 7631-86-9, Silica, uses and miscellaneous 9011-05-6,  
Urea-formaldehyde resin 11114-17-3, Fluorad FC-430 13463-67-7,  
Titanium dioxide, uses and miscellaneous **29117-08-6**,  
Fluorad FC-170C 37199-81-8, Demol EP 109488-85-9, Voncoat V  
117148-42-2, Hydran AP-30 122526-42-5, Disrol H-12 123760-02-1,  
Voncoat 3985 124631-89-6, Hydran HW 310 126602-36-6, Hydran AP  
310

RL: USES (Uses)

(ink-jet recording media containing)

L30 ANSWER 22 OF 23 HCAPLUS. COPYRIGHT 2008, ACS on STN  
 ACCESSION NUMBER: 1988:464231 HCAPLUS Full-text  
 DOCUMENT NUMBER: 109:64231  
 TITLE: Carrier for electrostatographic developer  
 INVENTOR(S): Aoki, Takayoshi; Takeda, Masayuki; Suzuki,  
 Chiaki; Nagatsuka, Ikutaroh  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

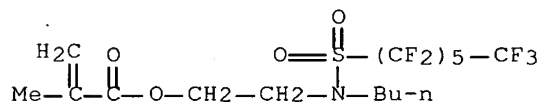
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 248421	A2	19871209	EP 1987-108064	198706 04
EP 248421	A3	19881207		
EP 248421	B1	19940907		
R: DE, GB				
JP 62286062	A	19871211	JP 1986-129253	198606 05
JP 07021651	B	19950308		
JP 62295074	A	19871222	JP 1986-138179	198606 16
JP 07021652	B	19950308		
JP 62295075	A	19871222	JP 1986-138180	198606 16
JP 07021653	B	19950308		
JP 62295076	A	19871222	JP 1986-138181	198606 16
US 4791041	A	19881213	US 1987-58421	198706 05
PRIORITY APPLN. INFO.:			JP 1986-129253	A 198606 05
			JP 1986-138179	A 198606 16
			JP 1986-138180	A 198606 16
			JP 1986-138181	A 198606 16

IT 115418-32-1

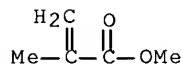
(electrostatog. developer carriers from magnetite particles dispersed in polymer binder and covered by, with controlled critical surface tension)

CN 2-Propenoic acid, 2-methyl-, 2-[butyl[(tridecafluorohexyl)sulfonyl]amino]ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI)  
(CA INDEX NAME)

CMF C16 H18 F13 N O4 S



CMF C5 H8 O2



(carriers, containing **fine magnetite particles** dispersed in resin binder and covered by polymer coatings with controlled critical surface tension)

(developers, carriers, containing **fine** magnetite

particles dispersed in resin binder and covered by  
polymer coatings with controlled critical surface tension)

IT 115418-29-6 115418-30-9 **115418-32-1** 115418-33-2

RL: USES (Uses)

(electrostatog. developer carriers from magnetite particles  
dispersed in polymer binder and covered by, with controlled critical  
surface tension)

L30 ANSWER 23 OF 23 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:6963 HCAPLUS Full-text

DOCUMENT NUMBER: 80:6963

ORIGINAL REFERENCE NO.: 80:1159a,1162a

TITLE: Emulsion for injection having high oxygen  
carrying ability

INVENTOR(S): Mori, Kokage

PATENT ASSIGNEE(S): Green Cross Corp.; Dainippon Ink and Chemicals,  
Inc.

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 48061616	A	19730829	JP 1971-98414	197112 06
PRIORITY APPLN. INFO.:			JP 1971-98414	A 197112 06

AB Fluorocarbons such as perfluorodecalin and perfluoromethyldecalin (I), which have vapor pressures of 4-12 mm Hg at 37° and high O<sub>2</sub>-carrying abilities were emulsified into **fine particles** of 0.05-0.4 μ with nonionic detergent CnF<sub>2n+1</sub>SO<sub>2</sub>NRCH<sub>2</sub>CH<sub>2</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)mH such as poly(oxyethylene)-N-methylperfluorooctanesulfonamide ethyl ether (II) and poly(oxyethylene)-N-propylperfluorodecanesulfonamide ethyl ether. The emulsion was sterilized with rotation to control the particle growth <0.4 μ. To a solution (8.5 l.) of 4% II (mean mol. weight 5000) was added 3 kg purified I and stirred vigorously for 30 min. The crude emulsion, kept at 40-50°, was emulsified by a jet emulsifier, jetting at 140, 500, 560, and 140 kg/cm<sup>2</sup> at 1st, 2nd and 3rd, 4th, and 5th steps, resp. The emulsion obtained was charged to a centrifuge at 30 l./hr. The supernatant was divided into vials for injection and sterilized at 115°, 15 min with rotation. The emulsion contained 29.8 weight/volume % I and 86.2 ml O<sub>2</sub>/l. at 760 mm of. O<sub>2</sub> partial pressure.

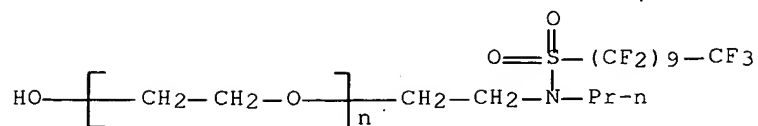
IT **52550-33-1 52701-06-1**

RL: BIOL (Biological study)

(oxygen carrier injection containing perfluorodecalins and)

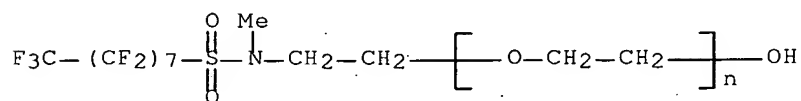
RN 52550-33-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-[[[heneicosafuorodecyl)sulfonyl]propylamino]ethyl]-ω-hydroxy- (9CI) (CA INDEX NAME)



RN 52701-06-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[2-[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)



INCL 30C411

CC 63-6 (Pharmaceuticals)

IT **52550-33-1 52701-06-1**

RL: BIOL (Biological study)

(oxygen carrier injection containing perfluorodecalins and)

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